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Special Articles This Month

Technique in Fruitgrowing
The Goulburn Valley, Vic.
South Australian News and Notes
Personal Items and News in Brief
News from Tasmania
Storage of Jonathan Apples
Citrus, Canned and Dried Fruits
Motor Notes
Meetings of Fruitgrowers' Associations
Apple and Pear Acquisition
Black Spot in Apples
Poultry, Pig and Home Notes

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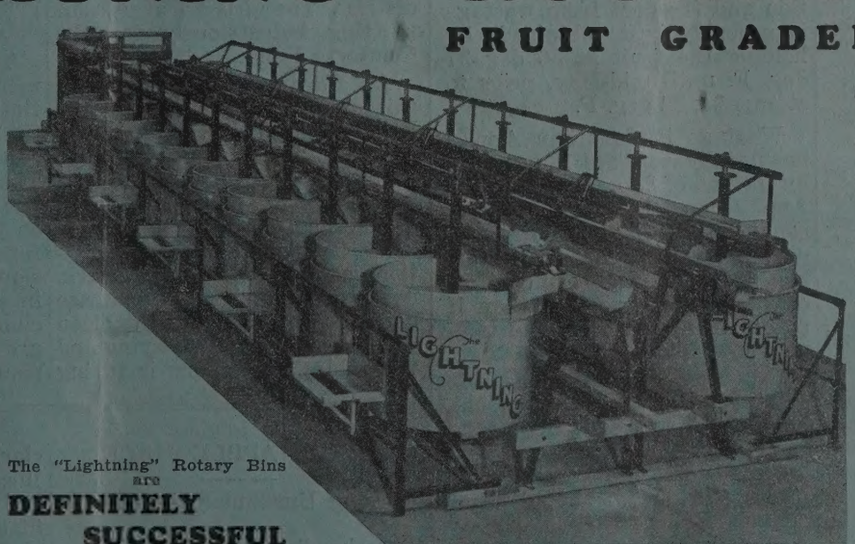

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Storage of Jonathan Apples

Factors Affecting Wastage

THE WASTAGE in Jonathan Apples during storage forms the subject of an important bulletin (No. 135) just issued by the Council for Scientific and Industrial Research. This wastage is considerable, as the Jonathan Apple, which ranks next in importance to the Sturmer Pippin as an export variety, is subject to a number of disorders during, and shortly after removal from cool storage, and, moreover, rapid deterioration of eating quality occurs unless the fruit is placed in comparatively low temperatures soon after picking.

The investigations described were carried out by officers of the Victorian Department of Agriculture and of the Council working in co-operation.

The important factors influencing the keeping quality of the fruit are maturity of the fruit at time of picking, seasonal and growing conditions, size of the fruit and of the crop, handling treatment, pre-storage conditions after picking, storage temperature, composition of the storage atmosphere, and duration of storage.

Some of these factors such as seasonal and growing conditions cannot be controlled. Others, however, can be, and if due attention is paid to these by the grower, packer, and shipper, then much can be done to improve present conditions and ensure a smaller wastage.

For instance, the ground color, i.e., the color of the unblushed portion of the fruit, is a fairly reliable index of the maturity of the fruit from a particular district. When the ground color is green the fruit is immature, acidic to the taste, astringent and of poor flavor. When the fruit is left on the tree, the ground color gradually changes from green to green-yellow, and the Apple becomes crisp and juicy, sweet, and of good flavor. The Apple becomes over-mature if left on the tree until the ground color becomes deep yellow, loses its crisp and firm texture, and becomes soft and slightly mealy. A colored chart, which is included in the Bulletin, shows the most satisfactory stage at which to pick the fruit, and it should be of considerable value to growers.

Because of the possible development of low temperature disorders, prompt cooling of Jonathan Apples to 32 deg. F. immediately after picking is not recommended, but cooling to 36 deg.-45 deg. F. should result in less wastage and the maintenance of better condition during overseas transport than by leaving the fruit in the packing shed prior to shipment. A temperature of 34 deg. F. seems to be satisfactory for the overseas transport of Jonathan Apples from Victoria, but in local storage the maintenance of condition and freedom from wastage is probably best obtained by holding the fruit at 36 deg.-37 deg. F. until mid-May, prior to storage at 32 deg. F.

Wastage in Jonathan Apples has usually exceeded 10 per cent. by the end of September, but the Apples can be held in a better condition if stored in an atmosphere containing 5 per cent. carbon dioxide and 16 per cent. of oxygen at 36 deg. F. than if stored in air at the same temperature.

Other disorders such as soft scald, Jonathan Spot, and mould, have been investigated, and their development under varying conditions is recorded. The information given should be of definite value, particularly to Apple growers and distributors.

Over ten million dollars was paid by California farmers for fertilisers in 1939, including 217,000 tons of commercial fertilisers.

Young Farmers' Clubs

Many Field Days

Again reports from officers of the Victorian Young Farmers' Clubs Association contain news of many Field Days in which not only the children but also their parents are intensely interested in the various project schemes in operation. As is usual, the interests cover fruit and vegetable growing, stock rearing, poultry breeding and, in fact, work peculiarly interesting in the district concerned. This is practical education for our coming orchardists and farmers.

Since last report, visits of inspection have been paid to Carpendeit, where 11 head of high-grade stock are being cared for by the children. Derrinallum, where the girls are keeping the school grounds bright with flowers and the boys are growing vegetables and devoting the proceeds to war relief funds. Purrumbeet has large pasture plots which are inspected regularly by interested adults in the district. The girls are at present knitting industriously for the Comforts Fund.

At Cardigan £18 has been raised by the children for the Red Cross. This Club recently won the Lederman Shield. The Sailors Gully Club controls a 20 acre farm and run 29 sheep at present, as well as looking after Oat and Flax demonstration plots. At Deer Park, flowers, vegetables and fruit are being grown, whilst at Napoleon the interest runs to dairying and vegetables. Scotsburn is trying to emulate the record of the district during the Great War, when a large sum was raised for patriotic purposes. Ross Creek Club is working on grasses and top dressing in conjunction with science classes in the school. Wantirna is planning a fruit-growing project in addition to their regular Apple packing classes.

Poultry, wheat, sheep, clovers and vegetables keep Tooleen members busy, but they have been able to raise £83 to date to invest in War Savings Certificates. Hepburn and Goornong are specialising in potatoes. Many of the children belonging to Young Farmers' Clubs in Victoria are sons or daughters of A.I.F. members abroad, and naturally are adding their bit from their own exertions to the will to win. Though we report mainly the outdoor work of the members, the girls also keep busy on domestic interests, cooking, sewing, etc.

To encourage the development of pasture growing and the study of grasses, Mr. Martin, M.L.A., donated trophies for competition in certain districts. This year Horfield, Kerang East and Calivil South came out top on points, the last two winning for the second year in succession. After being only one year in existence, the Dandenong club reports 65 members and is growing flowers, vegetables and poultry.

MIXED APPLE JUICE.

Using Unpopular Varieties.

Orchardists with trees bearing less popular varieties of Apples may be able to sell their fruit if certain varieties are mixed for the extraction of Apple juice. Dr. V. R. Gardner, of the Michigan Experiment Station, claims that filtered, clarified and pasteurised Apple juice from mixed varieties can find a market that will absorb a fifth of the national Apple crop if the unwanted varieties are converted into juice. Experiments are being undertaken to discover which varieties, in combination, will produce a popular blend of juice, and the proper proportion of each variety to be used.

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NEWS OF THE MONTH.

AFTER THE WAR.

Exports of Foodstuffs.

One of the matters that will be discussed with the British Government by Mr. Menzies during his visit to London will be the resumption of the importation of Australian foodstuffs as soon as shipping facilities are available. Naturally this latter is the limiting factor at present, but with the great British market open to the world, when peace conditions permit a resumption of international trade, Australia will again be invited to make even greater contributions to the British markets.

With Britain having to open her ports to all countries with which she will naturally want to exchange goods after the war, it is anticipated that the Dominions will be given at least some form of precedence, although there will necessarily need to be some control of imports, even from the Dominions, for many years. In addition, at least until present occupied countries can return to normal peacetime production, Europe will have to be supplied from all producing countries, and North and South America will want a good share of that trade. In spite of some criticism of Mr. Menzies' visit at this time, it would appear to be a wise move to protect Australia's interests in the matter of exports immediately after the war.

GERMANY FEELS THE PINCH.

Repeated reports state that the unfortunate people of Germany are being increasingly rationed as regards food. Milk is almost unobtainable, and cream is unknown. No tea or coffee, except what soldiers send home to their friends from occupied countries which Germany is "protecting," is obtainable in the stores. There is no fruit to be had, and scarcely any vegetables other than Potatoes, Cabbage heads and green Tomatoes—if the greengrocer has any. Dried roots are sold for soup making. Most foods are substitutes. Rations are continually being reduced, although it is still possible, with luck, to keep above the hunger line.

COVENT GARDEN GOES SLACK.

A report from London in January states that Covent Garden, the noted wholesale market for fruit, vegetables and flowers, is experiencing slack days owing to war conditions having decreased its normal peace-time supplies from all over the world. In spite of so many employees joining up with the forces, there is still some unemployment of porters in the Garden owing to merchants joining other firms or sharing market stands. Even so the great Covent Garden is able to supply a large proportion of its normal custom in fruits and vegetables that are available.

WINE IMPORTS BANNED.

Empire Growers Shocked.

The action of the newly formed Import Executive in London in banning imports of wine from the Dominions has come as a shock to Australian wine interests. Although the industry has not made a serious protest against the ban, the Australian Wine Marketing Board will keep Mr. Bruce informed of the position at this end in the hope that the ban may be lifted as soon as possible when the shipping position permits.

PERSONAL.

The New Years' Honor list contained the name of **Mr. Harold Clapp,** late Chairman of Commissioners of the Victorian Railways, and since 1939, General Manager Aircraft Construction for the Commonwealth Government. Sir Harold is also Chairman of the Australian National Publicity Association, and also on the Board of Management of the Royal Melbourne Hospital.

PERSONAL NOTES—(Continued).

Mr. D. C. Winterbottom, general manager of the Mildura Co-operative Fruit Company, visited Melbourne late in January to attend the Dried Fruits meeting.

The valuable experimental work done by **Mr. J. A. Ballantyne** at the Bathurst (N.S.W.) Experiment Farm, is favorably referred to in this issue in a report from the Chief of the Division of Horticulture in N.S.W., Mr. C. G. Savage.

Mr. R. G. Livingstone, fruit merchant, of Brisbane, visited Victoria during January Mr. Livingstone has been handling southern Apples and Pears for many years. He is one of the selected panel of agents under the Acquisition Plan. Always interested in the subject of advertising, Mr. Livingstone is serving on the Queensland Apple and Pear Publicity Committee, and has associated with him Messrs. Hedley Geeves, B. Mendoza, and T. Bowden and others.

Mr. H. A. Stevenson has been appointed State Superintendent and Secretary to the N.S.W. Committee, Australian Apple and Pear Marketing Board. Mr. Stevenson has been closely associated with the fruit industry over many years, having rendered in particular excellent service to Banana growers.

The recent death in Sydney of **Captain W. J. Wade, M.B.E.,** removes an officer well known to Australian fruit exporters. He was representative in Australia and New Zealand for the Manchester Ship Canal Company (the Port Authority for Manchester). In his early days he was associated with the Loch Line Clippers which traded regularly between Australia and Great Britain, but later he went into steam shipping on various routes Later again he was wharf superintendent at Manchester, and later superintendent of markets and cool stores.

Mr. J. E. Dodds, of Batlow, N.S.W., has been appointed Secretary and Marketing Officer for the Potato Growers' Council of N.S.W. He has been Chairman of the Council since its inception in 1930. He is a well-known grower of certified seed Potatoes and has done good work in plant breeding trials.

Mr. W. J. Lowe, of Roslyn, succeeds Mr. Dodds as Chairman of the Council. He too is a large Potato grower, and has been a member of the Council since its inception.

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Mr. T. Hewson, who last year was Chief Executive Officer of the N.S.W. Apple and Pear Acquisition Committee, has now been appointed manager.

A meeting of Senior State Horticultural Officers was held at Melbourne in mid-January. There were present, Messrs. J. B. Mills, Chairman of the Apple and Pear Marketing Board, H. W. Soothill, Deputy Chairman, W. M. Carne (Commonwealth Fruit Officer), C. G. Savage (N.S.W.), J. M. Ward (Victoria), P. H. Thomas (Tasmania), A. G. Strickland, S. Aust., H. R. Powell (W.A.), and H. Barnes (Queensland).

In attendance also were Messrs. G. W. Wickens (W.A.), R. T. Wadeson (Vic.), W. P. Hutchinson (Vic.), L. S. Taylor (Tasmania), and H. S. Hunter (Director of Marketing, Queensland).

Methods were agreed upon regarding grading, inspection and other matters relative to the 1941 Apple and Pear crop.

Mr. Willis J. Williams, Supt. of the Sydney Municipal Markets, and an authority on cold storage matters, was among the recipients of New Year Honors. He has been appointed a member of the Order of the British Empire (M.B.E.). Shortly after the war started, Mr. Williams' services were loaned to the Navy Dept., in which he is a Controller of Stores.

Mr. R. M. Carter has been appointed Superintendent of the Western Australian Committee of the Apple and Pear Marketing Board. Mr. Carter is a well-known figure in the W.A. fruit industry through his long association with Paterson & Co. Ltd. He is a delegate from W.A. to interstate conferences with the Apple and Pear Council. There will be ample scope for Mr. Carter's well-known organising ability in the responsible position which he now holds.

NEWS IN BRIEF.

In tests at the Bathurst Experiment Farm (N.S.W.), early impressions of some seedling stocks are favored as having advantages over Northern Spy. On Siberian Crab Apples the trees are larger and more vigorous, and the crops mature earlier, and the trees are more drought resistant. The experiments will be continued over a series of years.

The control of Red Spider on Almond trees is reported from California to be possible by spraying with iced water.

Black Spot in Apples

Outbreak in W.A.

Black Spot, though now recorded in all States, was unknown in W.A. up to 1930, when the first official record of its appearance was noted. In that year five cases were reported in widely separated areas, and the Department of Agriculture took rigorous measures of control and the trouble was eradicated.

Unfortunately, however, last year, aided by favorable weather conditions, a recurrence of the disease was reported, and again stringent measures were taken, with growers co-operating with the officers. The Department views the outbreak with much concern and, in their Journal, insist upon the following measures being taken:—

(1) All trees in the infected area and the ground beneath were sprayed forthwith with home-made Bordeaux mixture 6:6:40 strength, plus spreader, and as an added safeguard against the spread of the disease, a buffer area around the infected trees was also sprayed with home-made Bordeaux mixture 3:5:50 strength, plus a spreader. (Calcium caseinate at the rate of 1 lb. : 50 gallons of spray is preferred, but flour at the rate of 1 lb. : 50 gallons or skim milk, 1 gallon : 50 gallons are also suitable.

(2) All visibly infected fruit and leaves were stripped and destroyed; after the fruit of each variety is gathered as it becomes mature, the trees of each variety throughout the whole orchard and the ground beneath must be sprayed with home-made Bordeaux mixture 6:6:50 strength, plus spreader.

No Apples may be sent away from the orchard either for sale or gift, without first obtaining permission from an inspector, and then only to destinations approved by him.

(3) Early in April a quick-growing cover crop of either Oats, Rye, or Barley must be shallowly sown throughout the whole orchard, so that the diseased leaves will be prevented from blowing after leaf fall on to still uninfected parts of the same orchard or to other healthy orchards.

In August or early September (but at least a fortnight before spur burst commences) the cover crop must be deeply ploughed under, in one direction only, and subsequent cultivation must be delayed until approved and then limited to very light harrowing.

All areas beneath the trees which cannot be reached by the plough must be dug under by hand, this work to be so arranged that it is completed by the time the ploughing is finished.

In Spring all Apple trees in the orchard must be sprayed according to the following schedule:—

1. At "spur burst" when the tips of the young leaves are showing, home-made Bordeaux mixture 5:4:50, plus spreader.
2. At the "pinking" stage of blossoming when the majority of blossoms were showing pink, but before the petals had opened out, home-made Bordeaux mixture 3:4:50, plus spreader.
3. At the "petal fall" stage, home-made Bordeaux mixture 2:5:50, plus spreader.

To assist the unfortunate growers with the carrying out of this onerous work, especially the destruction of all visibly infected fruit and leaves, officers of the Department have been stationed in each district almost continuously since January. As a result of their co-operation with the growers concerned the infection has in each case been very materially reduced.

Fruit Pests and Sprays

Control of Fruit Fly and Codling Moth

THE CONTROL of fruit fly is compulsory in N.S.W., even by small owners of even one tree. Control measures include the use of traps or poison sprays and the destruction of fallen or infested fruit.

Sodium fluosilicate - white sugar bait is the standard poison bait, and the following formula is recommended:—Sodium fluosilicate 2 ozs., white sugar 2½ lbs. and water 4 gals. An alternative bait is tartar emetic in place of the sodium. It has been proved twice as effective in killing flies and less likely to injure foliage.

To Make Small Quantities.

For growers with only a few trees the following procedure in making up the foliage poison spray will be found useful and does away with the necessity of weighing out very small quantities of sodium fluosilicate or tartar emetic.

One ounce of poison may be dissolved in 1 gallon of water to form a stock poison solution. This solution should be stored in glass containers, corked securely and labelled "poison." When required for use, 1 pint of this stock solution is measured out and a further pint of water and 2½ ounces of sugar added. The quart of foliage poison spray thus mixed will treat four to six trees, and the stock solution should suffice for the season's requirements for the average household orchard.

A Ready Mixed Bait.

A ready mixed sodium fluosilicate-sugar bait is now available and may be purchased in small quantities at stores dealing in spray requisites. In this instance the poison is mixed with the sugar and the bait is prepared by weighing the sugar-poison mixture and dissolving it in the requisite quantity of water. One and a quarter ounces will make 1 pint of spray, sufficient for one to three trees.

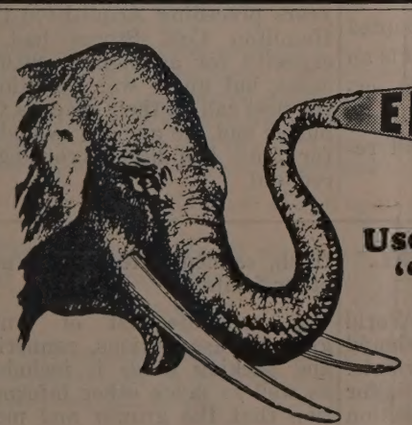
Either of the above two methods is recommended for small orchards. Foliage poison baiting, together with the regular collection and destruction of infested fruits, should materially help in keeping the infestation of Queensland fruit fly to a minimum.

Codling Moth.

The earliest moths of the second generation which hatch during the season usually emerge just before Christmas, and young grubs become evident early in the New Year in the growing Apples, and particularly in ripening Pears. In some districts where the codling moth presents a very serious problem, moth activity will continue unabated, due to the high population and consequent considerable overlapping of generations.

Provided spraying has been regularly and efficiently carried out, fallen and infested fruits collected and destroyed, and bandages inspected, growers should not have any difficulty in keeping losses to a minimum. It is well to realise that the killing, early in the season, of grubs transforming into moths, will exercise more control of infestation in the current season's crop than their destruction later, when the majority may overwinter.

In districts where codling moth is difficult to control, spraying should be continued at intervals of three weeks until the fruit is harvested. Lead arsenate at the rate of 3 lb. per 100 gallons is the basis of all really satisfactory spray programmes. White oil emulsions at the rate of 1 gallon per 100 gallons of lead arsenate spray will be found to give the most effective control. This is due to the fact that a greater load of lead arsenate



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Extract from "BETTER FRUIT," by Dr. R. L. Webster, Entomologist, State College of Washington, Pullman: CODLING MOTH COVER SPRAYS—"Ever since the imposition of an arsenic tolerance in 1926, and even before that time, investigators have been testing other materials which may be used in place of lead arsenate. Following all these intensive and extensive investigations lead arsenate appears to have certain inherent qualities which place this material foremost as an insecticide for codlin moth control."

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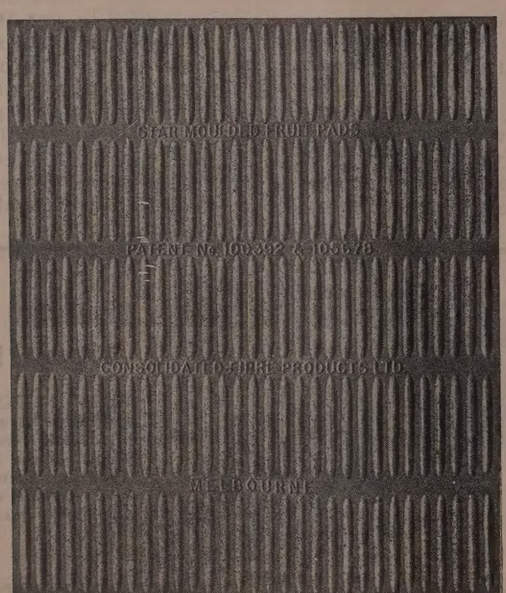

Moulded corrugated pads are the greatest advance ever made in fruit packing. They are resilient, odourless, moisture-proof. They act as a cushion and give better air circulation thus preventing damage to the fruit whilst in transit or in Cool Store.

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is deposited on the fruit, and of still more importance the white oil is capable of killing the codling moth eggs. In order to obtain the best results from the use of this spray it is essential to apply it thoroughly all over the trees, as many of the eggs are laid on the leaves away from the fruit.

Experiments carried out at Leeton, N.S.W., during the past two seasons have indicated that the white oil may be used at the rate of 1 in 200 without sacrificing efficiency. Where reasonable results are being obtained, or where economies are essential, growers might consider this reduction in the concentration of white oil in the lead arsenate spray.

The most satisfactory non-arsenical spray at present available is white oil 1 gallon plus nicotine sulphate 1 pint per 100 gallons. Fruits approaching maturity must not be overloaded with lead arsenate owing to health regulations, and also to an undesirable blotching which occurs on highly colored fruits. Provided early control measures have been carried on efficiently, the use of the white oil-nicotine sulphate mixture is to be recommended. Fruit receiving this spray treatment generally presents a better appearance, and the late infestation of moth should be negligible.—(N.S.W. Agricultural Gazette.)

NEW GOVERNMENT COOL STORES.

During the recent conference of the Australian Agricultural Council held at Canberra, it was stressed that the erection of the Government Cool Stores at Victoria Docks, Melbourne, destroyed by fire last year, should be proceeded with in order to provide cold storage of primary produce pending its export overseas when shipping space can be made available.

Thus the Minister for Commerce (Sir Earle Page) contends the war storage scheme adopted by the Agricultural Council is an important contribution to orderly postwar marketing, and will be part of the general reconstruction scheme.

A New Type of Sprayer

A new spraying machine has been developed in Florida and was recently tried out in California with good results.

The new outfit uses an aeroplane propeller to create a wind pressure to take the place of pump pressure. The liquid spray is shot out of a number of nozzles under fairly low pressure, and the 75 h.p. aeroplane motor sends it out in the rear of the spray rig in what observers called a great "peacock's tail," about 30 feet high and approximately 60 feet wide. An acre is covered in about 15 minutes by this fast-moving, fog-making equipment.

The outfit is said to be expensive. It attracted a lot of interest of those who saw it in operation.

DON'TS IN SPRAYING.

Don't use an oil spray on trees that have been sprayed with any sulphur spray for a period of at least two weeks.

Don't combine oil sprays with any of the sulphur sprays or with acid lead arsenate.

Don't use soap spreaders with either Bordeaux mixture, lime sulphur or lead arsenate.

Don't use nicotine sulphate alone; an activator is necessary to liberate the nicotine.

—("New Zealand Journal of Agriculture.")

COOL STORAGE IN QUEENSLAND.

During 1940, the maximum quantities which the Apple and Pear Acquisition Committee had in various cold stores at any one time were as follows:—

Hamilton Cold Stores, Brisbane, 47,000 approximately.

Burt's Cold Stores, Brisbane, 20,000 approximately.

Trail's Cold Stores, Brisbane, 15,000 approximately.

H. Archibald, Stanthorpe, 2,000 approximately.

M. McGuigan, Stanthorpe, 3,000 approximately.

It is undestood that in the years preceding Acquisition the Hamilton Cold Stores had a capacity for as high as 80,000 cases, but under war conditions the first call on their space is for butter and the amount available for fruit has been accordingly reduced.

"FRUIT WORLD ANNUAL."

The 1941 "Fruit World Annual" is now out and should be obtained by all orchardists. It is a valuable text book for all phases of fruit production and marketing, including, as it does, technical articles on spraying, cultivation, packing and, in fact, many articles of instruction of interest to growers. The movements of fruit, both domestic, interstate and overseas, are reviewed, together with statistical information regarding fresh, canned, dried, citrus and other fruits.

A complete list of fruitgrowers' associations, canneries and packing sheds is included, as well as much other information that the grower and merchant should know. Copies can be had direct from the publishers, Horticultural Press Pty. Ltd., Box 1944, G.P.O., Melbourne, upon receipt of 1/8 posted, or from your newsagent for 1/6. Order a copy now and be sure of getting this up-to-date book.

Apple and Pear Acquisition

Harvesting :: Packing :: Transport
Details for Victorian Growers

DETAILS of the varieties of Apples and Pears, qualifying sizes and rates of advances to growers have previously been published in the "Fruit World."

In order to provide a preliminary guide to growers, fruit inspectors and district representatives re acquisition of the 1941 Apple and Pear crop, a statement has been issued to Victorian growers as follows:—

A GENERAL PRELIMINARY GUIDE TO GROWERS, FRUIT INSPECTORS AND DISTRICT REPRESENTATIVES RE ACQUISITION OF 1941 APPLE AND PEAR CROP.

The grower will be required to give "delivery" in such manner and at such times as the Marketing Board or its authorised officer may direct. In any instances, however, where the Marketing Board is of opinion that any delivery has not been made substantially in accordance with its direction, it may reduce or defer in part, or whole, the amount payable to such grower in respect of either advance, etc., or delivery costs. No such reduction or deferment shall, however, be made in respect of any matters arising subsequently to formal acceptance of delivery by the Marketing Board, unless attributable to a material act or omission by the grower.

It is the duty of growers to give ample adequate notice to the Board's local representative as to the time when the fruit will be ready for picking, and it is also the duty of the grower to indicate to the Board's Agents what proportion of the fruit will be suitable only for immediate sale, and what proportions are suitable for cool storage for short or for long periods.

(a) The growers are responsible for the costs of:—
  (i) Harvesting,
  (ii) The provision of containers for harvesting,
  (iii) The transport of such fruit and containers, either to the gates of the property on which the fruit is grown, or to such other point closer to the trees, as may be directed.
  (iv) Notwithstanding the foregoing, the onus is on the grower to deliver his fruit to a Packing Shed, Cool Store or elsewhere, as directed, and for this service compensation will be payable.

(b) The Board will pay or recoup, at appropriate rates, all subsequent costs incurred under its direction or with its approval.

(c) The growers must provide their own harvesting cases, but these will be available to them after packing. Should, however, growers cases be required for storage, or for sale, the grower will be recompensed.

Whilst the grower may be required (see first paragraph) to prepare and present his fruit as directed, it is the intention of the Victorian State Committee so far as is practicable to avoid requiring growers to provide any greater service than that which they have customarily given in the preparation of their fruit. Central packing facilities will be arranged where possible, and in all instances, every reasonable endeavour will be made to assist growers by ensuring that such packing materials (including cases for marketing) as may be required, are available.

Any grower who may be unable, despite every effort, to fulfil requirements, is invited to refer to the Committee or its District representative, who will endeavour to arrange such modification or assistance as circumstances may permit.

Final acceptance of fruit must be after grading, etc., and inspection, to ascertain nett quantities, sizes and grades, i.e., on a Pack-Out basis.

When fruit is placed in store, pending sorting and grading, an interim acknowledgement will be given and payments on account may be arranged. (See first paragraph).

The unit of quantity for which compensation is payable is—One (1) bushel defined as follows:—

The unit of quantities shall be a bushel or proportion thereof and defined at the discretion of the Marketing Committee as "the equivalent of the quantity of fruit which would properly be packed into a bushel case."

In respect of any varieties, sizes or grades of which delivery for marketing is not required, it is intended that arrangements be made for such inspection as will permit of measurement of quantities, sizes and grades involved. Subject to the approval of the Minister, these will qualify for payments on the bases of scheduled rates.

Grade standards applicable are set out in regulations which will be circulated as soon as possible, and pending formal approval, those operating last season will apply.

In all instances the opinion of the Marketing Board, as to grades, varieties, qualities, quantities, etc., will be final.

The task of all those responsible for and assisting in the conduct of the Commonwealth acquisition, is a difficult and onerous one. The responsibility of each and every grower is also substantial, especially in his own interest. Irrespective of individual or collective views as to the merits or demerits of the decisions made, we feel justified in emphasising that it is the responsibility of the individual to himself and to his fellow growers to do his best to ensure smooth working. Failure so to do must react primarily upon the grower but also upon the industry as a whole and upon the Nation.

We appeal to each and all to do their share and ask for their collaboration and co-operation.

The Board's Agents for purposes of 1941 Acquisition in Victoria are as under:

Metropolitan Zone: Southern Victorian Pear Packing Co., Railway-road, Blackburn.

Goulburn Valley and North Eastern Zone: Messrs. S. J. Perry and Co., Shepparton, and 364 Little Collins-street, Melbourne.

Red Hill, Diamond Creek, Hurstbridge Zones: I.F.M., Wholesale Fruit Market, Franklin-street, Melbourne.

Peninsula and Narre Warren: T. E. Butler, 486 Collins-street, Melbourne.

Harcourt Zone (including Elphinstone, Bendigo, etc.): Harcourt Committee (Chairman: K. Eagle, Harcourt).

Gippsland Zone: Gippsland Committee (Chairman: T. F. Black, Beaconsfield Upper).

Bairnsdale: G. W. Peart, Bairnsdale.

Western Zone (including Portland, Heywood, Gorae, etc.): W. J. Williamson, Portland.

Colac Zone: G. N. Morriss, Colac.

Geelong Zone: H. F. Richardson & Co., Geelong.

Nhill Zone: E. Bound & Son, Nhill.

Quantong Zone: Quantong Fruitgrowers Ltd., Quantong.

Pomonal Zone: H. Ridley, Pomonal.

Ballarat Zone (including Amphitheatre, Elmhurst, Riverside, Dooen, Horsham): E. C. Fankhauser, 25 Peel-street North, Ballarat.

Bacchus Marsh Zone: W. E. Spurr, Bacchus Marsh.

Citrus Growers

GET YOUR VALENCIAS AND LEMONS COLOURED.

Skin and Quality definitely improved

... at ...

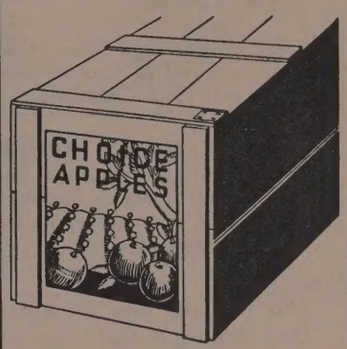
Betta Pack Fruit Storage Co. Pty. Ltd

436 QUEEN ST., MELBOURNE

(Opposite Victoria Market)

Tel., F 3093. Prices moderate.

CASE LABELLING



USE THE PASTE THAT KEEPS THE LABELS ON

DAVIS 444

POWDERED ADHESIVE

Economical to use, easily prepared, easily applied, quick drying, non-staining, non-corrosive.

All particulars about

DAVIS 444 ADHESIVE

from

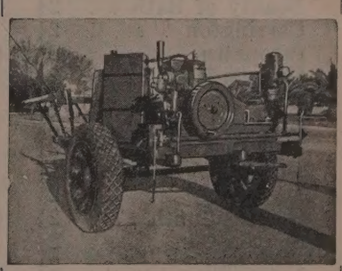
Davis Gelatine, Melbourne.

Supplies obtainable from hardware, paint and other stores.

— THE —

BAVE-U

POWER SPRAYER



All models can be fitted with pneumatic tyres at little extra cost.

Write for Particulars

Russell Burrows Pty. Ltd.

Box Hill, E.11 Victoria

RATES OF COMPENSATION

As set out hereunder have been fixed for the various services as specified.

CARTAGE RATES:—

	Pineapple or Banana Cases	All other Containers.
Up to 5 miles	2¼d.	1¾d.
Over 5 miles up to 10 miles	3¼d.	2½d.
Over 10 miles up to 30 miles	4½d.	3½d.
Over 30 miles up to 40 miles	7¼d.	5½d.
Over 40 miles up to 55 miles	8d.	6d.
Over 55 miles	9¼d.	7d.

These rates include conveyance of fruit to vehicles and loading thereon, and unloading from vehicles and placing or stacking of fruit in position/s where directed.

STACKING AND UNSTACKING RATES:—

(a) Stacking where directed on floor of Public Packing Shed or in non-insulated portion of a Cool Store premises:	ALL CONTAINERS:	¼d. per case
(b) Stacking where directed in Cool Store Chambers:	Pineapple or Banana Cases:	¾d. per case
	All other Containers:	½d. per case
(c) Unstacking from Cool Chambers and removal of fruit to non-insulated area outside Cool Chambers:	ALL CONTAINERS	¼d. per case

LOADING RAILWAY TRUCKS:

Loading fruit into Railway Trucks from Cool Stores or Packing Sheds: ¼d. per case

N.B.—This does not apply to fruit loaded into Railway Trucks by Carriers or others paid Cartage Rates as above.

CASE HIRE:

Hire of Cases used for storage of fruit **in Cool Chambers:** 2d. per case

Hire of Long Bushel (Upright or Flat) Cases for for Victoria Market: ¼d. per case

Cases will be hired only as, and when, required by the Board or its Agents.

Branding of Hired Storage Cases: The full name and address of the owner of all storage cases hired must be legibly stencilled by the owner on cases before delivery to the Board.

PACKING RATES:

APPLES		Rates per case payable to Growers.
Grading, Sizing and Packing Wrapped or Naked, excluding case making, but including lining with Strawboards or Paper, lidding, stencilling brand and destination marks, labelling and/or attaching stickers and branding on same.	Canadian C/s as for export New Dump C/s S/Hand Dump C/s	5d.
Grading, Sizing and Packing Naked into Upright Long Bushel Cases for Victoria Market. (Including provision of Printed Newspaper for lining and including attaching stickers and branding on same).		4½d.

Preparing Fruit for Cool Storage (including attaching cleats if required) and attaching stickers and branding on same)		A. (Packed)	B. (Loose)
A. means Graded, Sized and **Packed** in cases.	Dump	5d.	3d.
B. means Graded, Sized and **not Packed.** i.e. placed **loose** in cases.	Kero, Lug or three-quarter Pine	5½d.	3½d.
	Full Pine	7d.	5d.

The above rates include supply of Paste and brushes for applying same, Stencil Brushes and Stencil Ink, Rubber Stamp Pads and Ink for same, and similar sundries, where required, incidental to packing services.

EXTRAS: Making Canadian or Dump Cases, 1d. Wire Tying Canadian or Dump Cases, ½d.

APPLE GRADES.

Table of varieties, minimum size in inches, and minimum % colour requirements necessary on each apple for the grades EXTRA FANCY, FANCY and GOOD.

Variety.	Extra Fancy. Size.	Extra Fancy. Colour.	Fancy. Size.	Fancy. Colour.	Good. Size.	Good. Colour.
	ins.	%	ins.	%	ins.	%
Beauty of Bath	2¼	50	2¼	33	2¼	10
Carrington	2¼	50	2¼	25	2¼	10
Cleopatra	2¼	Gr.	2¼	Gr.	2¼	Gr.
Cowells Red	2¼	50	2¼	25	2¼	10
C.O.P.	2⅛	33	2⅛	10	2¼	—
Crofton	2⅛	50	2⅛	33	2¼	10
Delicious	2¼	50	2¼	25	2¼	10
Democrat	2¼	75	2¼	50	2¼	20
Dougherty	2⅛	50	2⅛	33	2¼	10
Granny Smith	2¼	Gr.	2¼	Gr.	2¼	Gr.
Gravenstein	2¼	50	2¼	20	2¼	—
Jonathan	2¼	75	2¼	33	2¼	10
Kirks	2¼	Gr.	2¼	Gr.	2¼	Gr.
Lady Daly	2¼	G.	2¼	G.	2¼	Gr.
Legana	2¼	50	2¼	25	2¼	10
Lord Nelson	2¼	G.	2¼	G.	2¼	Gr.
McIntosh Red	2¼	50	2¼	25	2¼	10
Mobbs Royal	2¼	G.	2¼	G.	2¼	Gr.
Peasgood	2¼	G.	2¼	G.	2¼	Gr.
Rome Beauty	2¼	50	2¼	25	2¼	10
Statesman	2¼	33	2¼	20	2¼	10
Stayman	2¼	33	2¼	20	2¼	10
Summer Strawberry	2¼	75	2¼	33	2¼	10
Trivett	2¼	Gr.	2¼	Gr.	2¼	Gr.
Twenty Ounce (Maidens Blush)	2¼	G.	2¼	G.	2¼	Gr.
Warners King	2¼	G.	2¼	G.	2¼	Gr.
Williams Favourite	2¼	50	2¼	25	2¼	10
Willie Sharp	2¼	Gr.	2¼	Gr.	2¼	Gr.
Yates	2⅛	75	2⅛	50	2¼	20
Alfriston	2½	G.	2½	G.	2½	Gr.
Australian Beauty	2¼	33	2¼	20	2¼	10
Ballarat (Stewarts)	2½	G.	2½	G.	2½	Gr.
Buncombe	2¼	50	2¼	33	2¼	10
Duke of Clarence	2¼	50	2¼	33	2¼	10
Dunns	2¼	Gr.	2¼	Gr.	2¼	Gr.
French Crab	2½	G.	2½	G.	2½	Gr.
Geeveston Fanny	2¼	50	2¼	25	2¼	10
Golden Delicious	2¼	Gr.	2¼	Gr.	2¼	Gr.
King Cole	2¼	75	2¼	50	2¼	20
London Pippin	2½	Gr.	2½	Gr.	2½	Gr.
Nickajack	2¼	50	2¼	33	2¼	10
Prince Alfred	2½	G.	2½	G.	2½	Gr.
Rokewood	2¼	50	2¼	33	2¼	10
Scarlet	2¼	50	2¼	25	2¼	10
Stone Pippin	2¼	G.	2¼	Gr.	2¼	Gr.
Sturmer	2¼	Gr.	2¼	Gr.	2¼	—

(Continued on page 9.)

Australia's Apple Industry

Export Trade Disappears.

Problems of Marketing in Australia.

THE PROBLEMS CONFRONTING the Australian Apple industry are set forth in an official statement issued for general circulation to the public throughout the Commonwealth.

Included in this statement the following aspects are set forth:

In view of the continued restriction of shipping space for refrigerated cargoes and the inability of Australia resuming its Apple export trade during the coming season, the Commonwealth Government will continue its control of marketing.

As before, the Commonwealth Government is acquiring the whole of the Australian crop and its disposal is in the hands of a specially constituted Marketing Board.

The Marketing Board is formed of growers representing each State. It will be assisted by an executive composed of men whose position in the marketing world, prior to the war, will commend them to the industry.

Some individual growers doubtless will consider themselves harshly treated. The scheme, however, is not for the isolated few but for the thousands of growers scattered along the eastern and southern litoral from the south of Queensland to Fremantle in the west, and including Tasmania, the principal Apple-growing State of the Commonwealth. Special privileges for the few will be abolished out of regard for the common good. The motive actuating the Government is the prevention, as far as possible, of the deterioration of a national asset. Many millions of pounds sterling are invested in the industry and an endeavour must be made to pro-

(Continued on page 9.)

Variety.	Extra Fancy. Size.	Colour.	Fancy. Size.	Colour.	Good. Size.	Colour.
	ins.	%	ins.	%	ins.	%
Tasmans Pride . .	2¼	50	2¼	25	2¼	10
Worcester	2¼	50	2¼	33	2¼	10
Alexander	2¼	G.	2¼	Gr.		
Auradell	2¼	33	2¼	10		
Ben Davis	2¼	33	2¼	20		
Coleman	2¼	50	2¼	33		
Crow Egg	2¼	33	2¼	20		
King David	2¼	75	2¼	33		
King Pippin	2¼	50	2¼	20		
Newtown Pippin . .	2¼	G.	2¼	Gr.		
Pioneer	2¼	Gr.	2¼	Gr.		
Pomme de Neige .	2¼	50	2¼	33		
Ranelagh	2¼	50	2¼	33		
Ribston Pippin . .	2¼	10	2¼	10		
Schroeder	2¼	10	2¼	10		
Strawberry Pippin .	2¼	25	2¼	10		
Wellington (Dumelow)	2¼	Gr.	2¼	Gr.		
Yapeen	2¼	50	2¼	33		
Spitzenberg	2¼	33	2¼	20		

G = ground color full green. Gr. = ground color more green than yellow.

Pear Grades. Pears shall conform to such of the following grades as may be directed by the State Marketing Committee:—

PEARS.

Table of varieties and minimum size in inches necessary for the grades EXTRA FANCY, FANCY and GOOD.

Variety.	Minimum Size in Inches. Extra Fancy and Fancy.	Good.
	ins.	ins.
W.B.C.	2¼	2¼
Packhams Triumph . .	2¼	2¼
Doyenne du Comice . .	2¼	2¼
Josephine	2¼	2¼
B. D'Anjou	2¼	2¼
Winter Nelis	2¼	2¼
Winter Cole	2⅛	2⅛
B. Bosc	2¼	2¼
B. Hardy	2¼	2¼
Lemon Bergamot . . .	2¼	2¼
Glou Morceau	2¼	2¼
Madame Cole	2¼	2¼
Keiffer	2⅜	
Clapp's Favourite	2¼	
Giblin's Seedling	2¼	
B. Easter	2¼	

THINNING RELATED TO ACQUISITION.

With prescribed varieties, grades and size limitations affected by the Acquisition Scheme, the Superintendent of Horticulture in Western Australia points out to orchardists in that State the importance of thinning during the current year.

Writing in the "W.A. Journal of Agriculture," he states that losses to growers from small fruit can be prevented by thinning so that the grades, sizes and varieties required under the Scheme may be met. Thinning is not an additional cost to the grower, as the fruit thinned is handled only once before it is dropped to the ground. If it is left on the trees, however, the small fruits are not only a loss to the grower but are a burden for the trees and will have to be ultimately eliminated, especially in those districts where Fruit Fly is prevalent.

AUSTRALIA'S APPLE INDUSTRY

(Continued from page 8.) (Official Statement.)

tect this investment until a return to normal conditions of trade. The industry furnishes a livelihood for many thousands of growers and orchard hands, and to an enormous body of workers engaged in the transport and sale of the fruit.

Australia is expected this year to produce a crop of about 11,000,000 bushels of marketable Apples Normally, Australia's consumption is about 6,000,000 bushels.

Continuing, the official review states: What would be the direct and immediate outcome of the year's trading without control, can be foreseen. States having large surpluses, such as Tasmania, W. Aust., and S. Aust., would not stand idly by, and hand over the rich markets of the Eastern States to Victoria and N.S.W. They would unload what portions of their crops they could, even at a loss, rather than see widespread unemployment in all sections of the industry. It is well known that a fierce trade war would be waged, and the Government of Tasmania, through its Minister for Agriculture, has made no bones about its view of the matter.

Tasmania will have a surplus of between four and five million bushels to sell. This fruit is more cheaply grown than the mainland fruit and as the costs of carriage to market are only slightly greater on the average than the mainland, they would prove no bar to its entry to the Melbourne and Sydney markets. However small the net returns, if any, to the growers might be, the Tasmanian Government is as much concerned in the industries ancillary to fruit growing, as with the fruit growing industry itself, and widespread unemployment among the dependent industries would present a problem of serious magnitude.

Tasmania for economic reasons, has always enjoyed the lion's share of the export trade. Much of her fruit, in normal times was packed in hardwood boxes instead of imported softwood boxes, and quite a substantial industry has been built up, in the forests and in the mills, in the manufacture of boxes. For the same reason the number of packers is very much larger than in other States. Transport of the fruit to the Board is mainly by motor lorries and not by railways, and so, in the land carriage of the produce, very many more men, not only actually, but relatively, find an important part of their livelihood along the main highways of the island. Similarly, very many more wharf-laborers and workers of other kinds, are employed in handling the crop. The abandonment of the Apple industry would mean not only the ruin of the growers, but would affect employment over a very wide field. No Government could be expected calmly to accept this prospect. The circumstances existing today will not permit all this activity being maintained, but the Board's policy will protect both growers and workers from the distress they would otherwise suffer.

In conclusion, the statement sets forth that the preservation of a country's assets, obviously is the duty of a Government in time of crisis. The assets represented in Apple growing are considerable. No satisfactory estimate of the expenditure involved is available. There are in Australia about 10,000 growers. They have invested their capital in a business from which they expect to obtain their means of livelihood for the remainder of their days. They cannot temporarily abandon the cultivation of their holdings when conditions are bad, and resume it when prospects improve. The work of an orchard is continuous, calling for an unremit-

STANDARDISED SPRAYING MATERIALS

- ALBOLEUM (White Oil Emulsion)
- ARSINETTE (Lead Arsenate Powder)
- DRYMAC (Derris Dust)
- COLLOIDAL SULPHUR (In semi paste form)
- BORDINETTE (Copper Fungicide)
- OSTICO (Sticky Tree Banding)
- OVICIDE (Tar Distillate)
- NICOTINE SULPHATE (Guaranteed 40%)

COOPER PRODUCT

This Trade Mark is your safeguard.

Obtainable at all Fruitgrowers' Associations, etc.

Sole Manufacturers:—

WILLIAM COOPER & NEPHEWS (AUSTRALIA) PTY. LIMITED

9—11 O'CONNELL STREET, SYDNEY

ting fight against disease, and the maintenance of the trees in a healthy condition. No alternative form of production can be undertaken. The land on which the trees are planted must be given over entirely to their support and nourishment.

This overshadows all other aspects of the problem created by stoppage of the export trade; unless it is realised disaster will overtake not the few, but it will overwhelm the whole.

HAIL DAMAGE IN N.S.W.

Insurance Scheme Needed.

It is estimated that N.S.W. soldier settlers lost about £10,000 worth of fruit from hail late in January. In discussing this matter the Chief Secretary (Mr. Tonking) is reported to have said that legislature should be introduced to conpensate growers for such loss as they could not afford insurance charges themselves. State laws make no provision to cover such acts of Nature.

ACQUISITION PLANS SUPPORTED.

The Editor,
"Fruit World."
Sir,

Writing as the President of the New South Wales Apple and Pear Growers' Association, I would like to say that I consider that the provisions for acquiring the 1941 Apple and Pear crops are under the circumstances reasonable.

Can we expect, when our country is at war and in grave peril, that more should be aimed at than to keep our assets as growers intact during the war period. And the amounts to be paid for our fruit will in most instances achieve this.

It has been claimed that the amounts to be paid do not represent the costs of production, and I am afraid that this statement has already misled many growers. There are really two costs of production to be considered. One we could call the total cost of production. The other the yearly cost of production. The total cost of production would include establishment cost and amortisation. The yearly cost would exclude these and include all other costs.

I think the price to be paid for our fruit will meet the yearly cost of production. That is to say, it will about cover the amounts to be paid for wages, cultivation, spray materials, maintenance and living expenses. If we demand something substantially more than this we are asking that the Commonwealth divert revenue for our use that is more urgently needed to prosecute the war to a triumphant conclusion. I feel that it is hardly necessary for me to appeal to all growers to give the 1941 Acquisition Scheme their fullest co-operation and support.

Yours faithfully,
A. E. HERRING.
Batlow, N.S.W., 15/1/41.

In Preparing Your Bordeaux Sprays Use . . .

ESA BLUESTONE

— Manufactured by —
THE ELECTROLYTIC REFINING & SMELTING COMPANY OF AUSTRALIA LTD.
PORT KEMBLA, NEW SOUTH WALES.

The Right Material for Plant Disease Prevention and Control
GUARANTEED 99% PURITY

GRADES—Mixed Crystals, Fines, Granulated (Snow), Packed in Suitable Containers for Growers' Requirements.

Agents for All States: ELDER SMITH & COMPANY LIMITED, All Capital Cities.

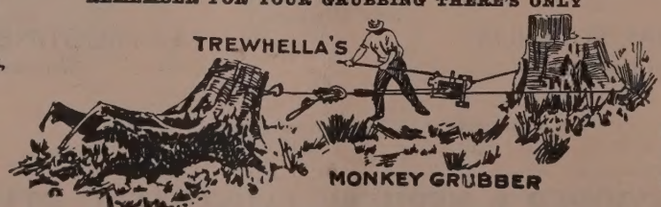
BOOKLET—"Better Yields by Spraying with E S A Bluestone" obtainable on application to Elder Smith & Co. Ltd.

ARE YOU GRUBBING?

Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features with a host of others, was THE "MONKEY" GRUBBER.

It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. The latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.

REMEMBER FOR YOUR GRUBBING THERE'S ONLY



H. H. HINDS, 225 Clarence Street, Sydney.

A. G. WEBSTER, & SONS, Hobart & Launceston.

REX ROBINSON, 83 Gipps Street, Brisbane.

Leading Stores and Merchants, South and West Australia.

TREWHELLA BROS. Pty. Ltd. Trentham, Vic.

NOTES FROM TASMANIA.

A correspondent writing under date January 25, states as follows:—

I am pleased to notice an insistent demand from several quarters for growers' licences. I hope a wider basis of distribution will be adopted for 1941.

A Growers Committee to advise the Marketing Committee on local requirements would do a lot of good.

I notice in the 1941 Scheme that only those varieties included in one of the three groups will receive compensation. By some strange coincidence several of the varieties omitted are grown in Tasmania chiefly. It seems to me that to acquire a thing forcibly for nothing is very like robbery; some of the excluded varieties have a good local demand. Tasmania is certainly getting a raw deal in comparison with N.S.W.

With our correspondent's letter was enclosed an article from the "Hobart Mercury" as follows:—

Fruit Acquisition.

Condemnation of the fruit Acquisition Scheme formulated by the Federal Government as "unjust and unfair" will not in itself accomplish anything. If the position is as stated at the meeting of the Huon Council, action will have to take the form of urgent and emphatic representation to the Federal Government, with the full weight of the fruitgrowers and of the State Government behind it.

Two-thirds of the Apple crop is produced by Tasmania, yet this State has only one representative on the Apple and Pear Acquisition Board, while some of the other States have two. It is an altogether anomalous situation, and one that cannot pretend to give Tasmania adequate representation. On what basis of reasoning the constitution of the Board was arrived at is hard to understand.

The statement by Cr. McIntosh, of the Huon Council, that growers in rival States are to obtain 9d. a case more than Tasmanian growers, does not appear to be supported by official figures, but it cannot be expected that the claims of Tasmania will obtain just recognition when it has such minority representation. The first and most imperative step is to demand that the representation be more in accordance with Tasmania's status as the largest producer of Apples and Pears.

CASTOR BEAN FOR SPRAY.

In addition to providing a good insecticide, the leaves of the castor tree have been found to make a good spray that will stimulate the early ripening of fruit and has been used with success in Florida.

Olive trees, 140 years old, originally planted by the San Juan Bautista Mission, are still bearing.

New South Wales News & Notes

FRUITGROWERS' FEDERATION OF NEW SOUTH WALES

Board Meeting in January

IMPROVED FACILITIES NEEDED AT DARLING HARBOUR — EAT MORE FRUIT CAMPAIGN — HAIL INSURANCE — APPLE AND PEAR ACQUISITION.

A MEETING of the Board of the Fruitgrowers' Federation of N.S.W., was held at Sydney on January 21 and 22, 1941.

Present: General J. Heane (in the chair), Messrs. A. E. Herring (Batlow), K. H. Todd (Griffith), A. S. Brown (Ourimbah), S. A. Stanford (Orange), A. J. Taylor (Singleton), A. A. Wilkinson (Uralla), P. W. James (Dural), L. T. Pearce and E. E. Herrod (Secretary).

Increase in Cartage Rates: In considering resolutions passed by a meeting of Bulk Loading Organisations held on December 5, protesting against any increase in cartage rates and requesting that industry organisations should be consulted by the Prices Commissioner before increases were permitted, the Board decided to support the resolutions.

Conditions at Darling Harbor: It was reported that the Markets Advisory Committee, representative of all bodies interested in the Municipal Markets, had decided to approach the State Government regarding the obsolete and inadequate facilities existing at Darling Harbour Rail Head for the handling of perishable produce. It was claimed that facilities and conditions are so inadequate that the Rail Head constitutes a weak link in the chain of defence plants which are being developed throughout the State. The Board accordingly decided that a delegation should wait upon the Premier and request the co-ordination of the various public bodies interested in the re-design of the Rail Head and of Darling Harbor.

Publicity: It was reported that the "Eat More Fruit" Campaign Committee, representative of the State Government, the Fruitgrowers' Federation of N.S.W., had been publicising those fruits which it had been considered could most profitably be brought before the public. During November and December attention had been drawn to the plentiful supply of Bananas, and during the Christmas festive season radio spot announcements had suggested fruit salads for the Christmas celebrations. It was reported that a citrus recipe book was in course of preparation, and this would eventually be made available to retailers and others for distribution to responsible persons. Some publicity in the future is mooted in regard to those stone fruits which may be in comparatively heavy supply, and in view of the Grape crop being a heavy one, some advertising of Grapes was deemed to be advisable.

Retailing of Foodstuffs: A letter was received from the Director of Marketing, Mr. A. A. Watson, signifying that a conference would be called at an early date to consider problems in the marketing of foodstuffs. The Conference will be representative of (a) the State Departments concerned, (b) producers, (c) consumers, (d) distributors, while the City Council, the University of Sydney, and the British Medical Association will also be invited to provide representatives. Consumers representation will be invited from organisations representative of, or identified with, consumer interests. The letter further intimated that an invitation to be represented at the Conference will be forwarded to the Fruitgrowers' Federation in due course.

The letter was received, and it was decided that the Federation would elect representatives to attend.

Sulphate of Ammonia: Representations had been made to the Commonwealth Prices Commissioner requesting information regarding increases in the price of sulphate of ammonia. The Commonwealth Prices Commissioner replied stating that a full investigation into the cost of this commodity had been conducted, and that increases in the cost had been approved. The position, however, will be reviewed from time to time by the Commission which will permit price adjustments necessary to ensure that the operations of the pool conducted result in neither gain nor loss to the company. Approval had been given to a pooling system under which costs of both local and imported sulphate had been averaged so as to maintain a uniform price throughout the Commonwealth.

Fruit Fly Reward: Further consideration was given by the Board to the decision of the Federation to collaborate with the Committee of Direction of Fruit Marketing, Queensland, in the payment of a reward for the discovery of an effective control measure for fruit fly. The President reported that he had interviewed the Minister for Agriculture on this matter, and further discussions were pending.

Income Tax Assessments and Deductions: It was pointed out that the position was anomalous in that in income tax assessments in relation to factory plant the deduction of depreciation was permitted, whereas in the case of orchards, depreciation was not an allowable deduction. It was decided to approach the Income Tax Commissioner and to request that depreciation on orchards should be a permissible deduction in assessments by orchardists.

Hail Insurance: The Hail Insurance Committee reported that investigations were proceeding regarding a suitable form of hail insurance that would be acceptable to fruitgrowers, and also to those underwriting the risk.

District Conferences, 1941: It was decided that in view of the state of National Emergency, the Secretary be excused from attending district conferences during May, and that the respective districts of the Fruitgrowers' Federation be requested to hold their conferences in the usual way. Such assistance as was necessary would be given from the office of the Federation, and the Board members who would be chairman of the respective conferences, were asked to arrange for one of the delegates to act as Secretary and to forward resolutions to the office of the Fruitgrowers' Federation immediately after the District Conference.

Experiments Subsidy: It was reported that approval of expenditure, following a request from the Department of Agriculture, had been given in connection with certain fruit fly experiments.

Visit to the N.S.W. Apple and Pear Acquisition Committee: A special invitation had been received by the Board of the Federation to attend a meeting of the N.S.W. Apple and Pear Acquisition Committee. Mr. H. V. Smith, Chairman, welcomed the visitors. It was hoped to maintain prices at a reasonable level and to encourage consumption, and at the same time endeavor to recover the money advanced by the Commonwealth Government. Export of Apples and Pears would be very limited this year owing to the restricted shipping space available and much larger quantities will be sold on the Australian market than normally.

The Federation Board members asked a number of questions regarding the 1941 plans, the following subjects being covered:—

Progressive South Australian Nursery

L. J. WICKS

Phone: F 8108

Highbury East, South Aust.

CITRUS on Sweet Orange and SEVILLE Stocks

Limited Stock of Robertson Navel

LARGEST STOCK OF STONE FRUITS IN STATE
SPECIALIST IN BUDDED WALNUTS AND ALL NUT TREES.
BLACK ENGLISH MULBERRIES, LOQUATS AND VINES.

New Peaches include BABCOCK and RIO OSO GEM.
30 Varieties of Persimmons stocked.
Grafted Feijoas in several varieties.

All Varieties Grown and Tested in Own EXTENSIVE ORCHARDS Affording Perfect Bud Selection.

WRITE FOR ILLUSTRATED CATALOGUE.

Trade Supplier of Standard and Threequarter Standard Roses

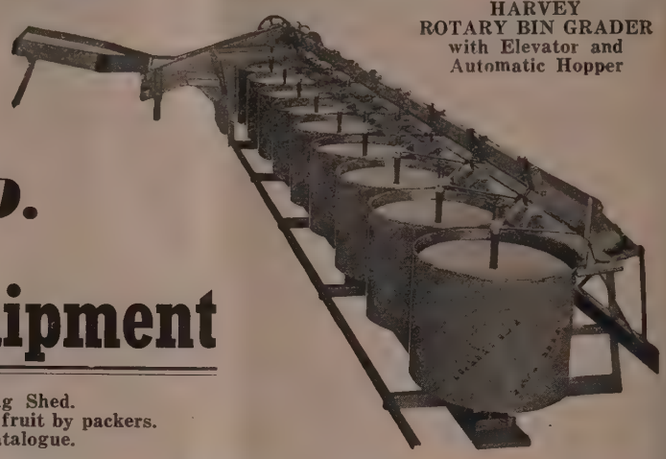
LEADERSHIP

Maintained by

DANIEL HARVEY LTD.

INTRODUCING

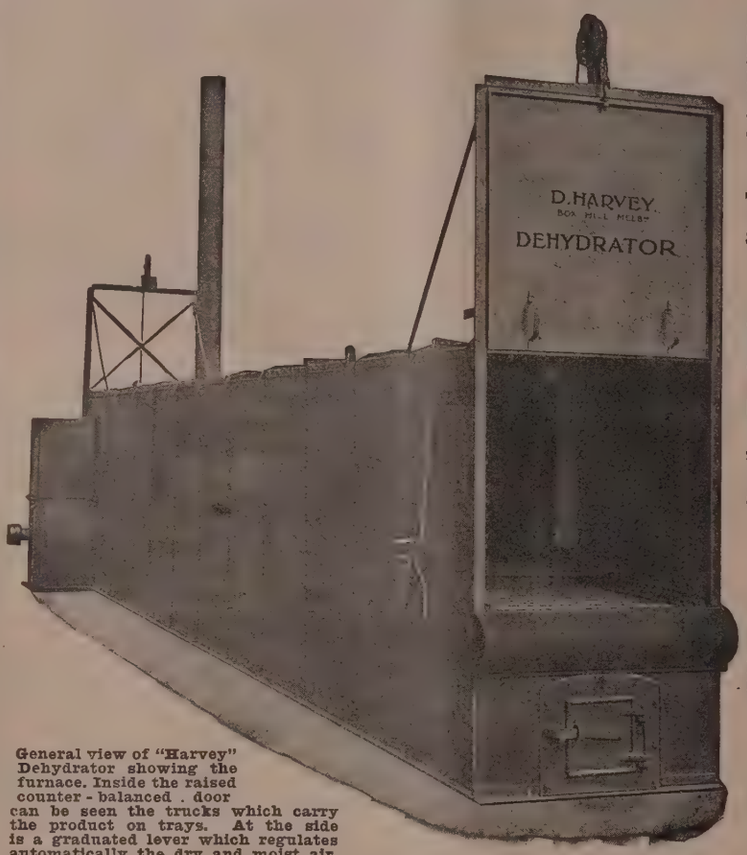
Rotary Bin Grading Equipment



HARVEY
ROTARY BIN GRADER
with Elevator and
Automatic Hopper

Made in sizes to suit the Small Grower and the Largest Packing Shed.
Rotary Bins considerably increase the average daily output. No pawing of fruit by packers.
Stem punctures and bruises eliminated. Write for catalogue.

Citrus Graders, Citrus Polishing Machines and Packing House Equipment



General view of "Harvey" Dehydrator showing the furnace. Inside the raised counter-balanced door can be seen the trucks which carry the product on trays. At the side is a gradnated lever which regulates automatically the dry and moist air. The blower and stack are shown in the distance.

BRYTENE PLANTS
CITRUS PROCESSING PLANTS
SORTING TABLES
LIDDING PRESSES
WAXING PLANTS
GRAVITY CONVEYORS
CANNERY GRADERS

CITRUS WASHING & STERILISING PLANTS (Hot or Cold)
COOL STORE TROLLIES AND TRUCKS
DEHYDRATORS
CITRUS POLISHING MACHINES
TOMATO GRADERS
PASSIONFRUIT GRADERS

The "Harvey" Citrus Washing Plants

SAVE SPACE — CAN BE USED WITH HOT OR COLD WATER.

Fruitgrowers—

The "Harvey" Air Re-Circulation Dehydrator

Solves the Problem of Marketing The Fruit Crop

SUCH AS APPLES, PEARS, PRUNES, APRICOTS, PEACHES, SULTANAS, Etc.

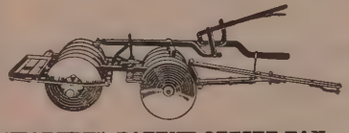
It is the best, cheapest, and most efficient type of dehydrator known. Used by all the most up-to-date Packing Houses and Sheds.

Large Output — Economical to Operate

The Fruit is placed in one end and comes out at the other dried to Perfection.

REMOVE SPRAY WITH THE "HARVEY" NEW HORSE HAIR BELT TYPE POLISHING MACHINE.

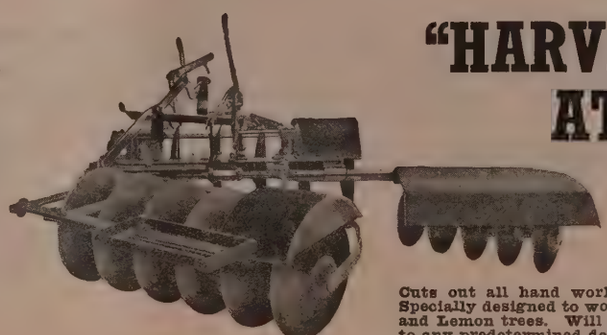
"HARVEY" IMPLEMENTS *Make Good Work Easy*



"HARVEY" PATENT OFFSET TANDEM DISC CULTIVATOR: Cultivates right up to the butts of the trees or vines while the Tractor is driven right out in the middle of the row.

Proved to be an excellent machine for deeply cultivating heavy irrigation land.

A Harvey Implement for Every Need



"HARVEY" CITRUS DISC ATTACHMENT

WITH HOOD FITTED TO WORK WITH "HARVEY" PATENT OFFSET TANDEM TRACTOR DISC CULTIVATOR.

Cuts out all hand working under citrus trees, and keeps the ground level. Specially designed to work right under the limbs up to the trunks of the Orange and Lemon trees. Will lift limbs loaded with fruit off the ground, cultivating to any predetermined depth, and then gently putting back in position the fruit-bearing limbs without injuring the fruit or fibrous roots. Cuts out all weeds without clogging.

FRUIT GROWERS, VIGNERONS and CITRUS GROWERS — OBTAIN YOUR REQUIREMENTS FROM:—

DANIEL HARVEY LIMITED

Orchard Implement Specialists
BOX HILL, VICTORIA

INTERSTATE REPRESENTATIVES—

N.S.W.—Tractors & Machinery Pty. Ltd., 131 Palmer St., Sydney.
S.A.—Gilbert, Sharp & Bishop, Rundle St., East Adelaide.
W.A.—Paterson & Co. Ltd., St. Georges Terrace, Perth.
S.A.—Cole & Woodham, Box 12, Renmark.
Southern Tasmania—Southern Implement & Machinery Coy., Market Place, Hobart.
Northern Tasmania—Max Geeves, Launceston.
Queensland: Buzacott (Queensland) Ltd., 443 Adelaide St., Brisbane.

Direct Sale by Growers and Roadside Stalls: It was stated that direct sale by growers would generally be limited as it was found during last year that it was impossible to police the acquisition scheme when unlimited permission was granted to continue such sales. Individual cases would be dealt with on their merits, and when previously established, permission to continue roadside selling might be granted.

Sale of Fruit Below Acceptable Sizes: Sale of extremely small fruit would not be permitted and offenders in this respect would be liable to prosecution.

One Board member reported that very heavy crops were in sight in the Orange district, and it was also stated that crops in the Kentucky district were heavy. Certain growers at Kentucky had recently lost their entire crop as a result of hail damage. During the season hail damage had been sustained at Young, Penrose, Marulan and The Oakes, in addition to Kentucky.

Mr. H. V. Smith stated that the Apple and Pear Committee was endeavoring to assist growers in regard to the supply of cases, but that the payment of presentation costs to the grower implied that the onus for the supply of cases was on the growers. Documentary evidence would require to be presented regarding case costs before the grower would be reimbursed at a higher rate than the standard rates of 1/3 per new case and 10d. per secondhand case.

In reply to a question as to whether acquisition would apply to all fruit or to a minimum acreage, it was stated by the Committee that all fruit sold comes under the Acquisition Scheme.

The State Superintendent, Mr. H. A. Stevenson, in explaining procedure to be adopted, stated that the Board would take no responsibility for inaccurate returns for fruit forwarded for sale and not accompanied by an advice note from the grower on the form supplied by the Board. It was essential that the correct size and count should be marked on the case, and that fruit should be correctly graded to size and packed in the orthodox manner to completely fill the case. Where such conditions were not observed, payment of the unit amount per case decided upon, obviously could not be made.

Mr. C. G. Savage explained that Departmental Inspectors would be responsible for the aforementioned inspection and administration of the grading and packing regulations. Inspectors would be stationed in the most convenient centres in the country.

When the standard Apple box was used for the packing of Pears other than Williams, the amount paid would be one-and-a-fifth, provided the case was packed with a two inch bulge and was a true export pack. To secure this bulge, correct packing and grading according to instructions would be necessary otherwise the case would be ranked only as one bushel.

Appreciation of the action of the Committee in inviting Board members to attend was expressed, and Board members were unanimous that much useful information had been imparted to them for dissemination amongst country growers.

QUEEN OF PRIMARY PRODUCTS.

In order to raise funds for the Red Cross and the Australian Comforts Fund, the Lord Mayor of Melbourne, Cr. Beaurepaire, has authorised a Queen Carnival throughout Victoria.

There will be ten Queens, including all phases of the community life of the State. The title "Queen of Agriculture" was proposed, but it was decided to alter this to "Queen of Primary Products" in order that the wool- grazing and other primary industries could feel themselves definitely united.

Miss Strella Wilson, the well-known singer, has been selected as Queen of Primary Products. She is a popular identity with a gracious personality.

The idea is that each section shall raise at least £5,000, so that £50,000 can be raised between the ten sections, to be handed over to the war funds named.

Committees are being appointed in connection with the several primary industries.

The fruit interests are asked to co-operate in every way so that the Queen of Primary Products shall be elected Queen of Victoria.

The crowning will take place at the Melbourne Cricket Ground on Saturday, March 29. Votes are 1d. each, and in addition to fruitgrowers, all associated with the industry are asked to vote for the Queen of Primary Products. Those interested will include distributors, manufacturers of the various lines needed for fruitgrowers, and those engaged in the transport of fruit.

The request is being made that this matter be taken up with enthusiasm, as it is of national significance. The organiser is Mr. J. D. Porter, 524 Collins-street, Melbourne.

The "Fruit World" will be glad to receive any donations, and to hand them over to the authorities.

Boron in the soil is said to be a detriment in California, whilst in Oregon it is applied as fertiliser.

The second national wine week will be observed in U.S.A. from October 13 to 20 next.

TASMANIA

APPLES AND PEARS DEVELOPING WELL — VIRUS DISEASE IN STRAWBERRIES

(By Our Correspondent.)

CONDITIONS in the Tamar Valley and North East became dry again after a nice rain about Christmas time, but the Apples and Pears left after the frost and hail are growing well, and should come well up to size.

Spraying for moth, etc., appears to be receiving proper attention, and the various pests appear to be kept well in check.

Owing to the lighter crops, labor shortage will not be so acute in fruit areas of the north of the State as in the south, where crops on the average are more normal. In the southern districts most of the orchards have been cultivated well and sprayed efficiently; there is very little Black Spot, Red Spider, or Canary Fly showing to date, but moth will probably be more troublesome than usual owing to the dry and warm conditions prevailing round Christmas and New Year. Spraying for moth is still continuing, and later there will be a nicotine spray for Canary Fly and Red Spider in many orchards.

So far the weather continues drier than usual, and no sign of a real rain setting in. The fruit in most places is well up to size for the time of year, as the subsoil is still moist.

Berry fruits in general and Strawberries in particular have not come up to expectations, as it has been a little too dry for them.

The virus disease makes Strawberry growing almost unprofitable; it is to be hoped that resistant strains will be evolved.

Cherries were fairly plentiful throughout the season, which is now almost finished.

There will be trouble with a shortage of picking cases before the season is finished if the Marketing Board insists on all fruit being picked, graded and stacked for inspection as suggested. In view of the shortage of labor for other things it seems rather silly from a national point of view to expend labor in picking, grading and stacking the unwanted fruit. To date no official information as to procedure has been made.

The factories cannot possibly absorb half the surplus in Tasmania.

Tasmanian Monthly Orchard Notes

The Minister for Agriculture (Hon. T. D'Alton) is in receipt of the following information from the Chief Horticulturist relative to the condition of orchards and other fruits during the past month.

Apple and Pear crops have continued to develop satisfactorily, but a certain amount of Black Spot has appeared, necessitating further control sprays. The full effects of frost damage may now be seen, and it is evident that in several districts this was more extensive than at first thought. Cleopatras have suffered most severely. Codling Moth and Canary Fly may now be found throughout fruit areas, the former being more prevalent than usual. Little change in the forecast made last month is, however, likely.

Berry Fruits.

The Strawberry crop was generally satisfactory, though there was some loss during wet, muggy spells. It is pleasing to report that fine samples of **Royal Sovereign** have once again appeared on sale, and it is expected that the dessert trade will be largely monopolised by this variety in the near future. Areas planted out from stock plants supplied by the Department now comprise many acres, and those growers catering for the dessert trade have expressed general satisfaction with the vigor and cropping capacity of the certified strain. Though the Department has not yet finished work on selected strains of the Ettersburg Tree Strawberry, plants already made available to growers have shown great promise.

Hobart, 8/1/41.

FOR A SPELL.

He had never had such a tough time in his life. First he got angina pectoris, followed by arteriosclerosis. Just as he got through with that he got pneumonia and then pulmonary phthisis and tuberculosis. He recovered just in time to get appendicitis, to say nothing of pyorrhoea.

All in all, he never knew how he survived, for it was the hardest test in spelling he had ever experienced.

GOODMAN'S
FRUIT TREES
CATALOGUE MAILED FREE
Place orchards on a more profitable basis—proved for prolific bearing. Apples, Pears, Plums, and Peaches, etc. Catalogue Free.
C. J. GOODMAN
Picnic Point Nurseries,
BAIRNSDALE, Vic.

"BAY VIEW"
Picking Bag

For Apples and Citrus Fruits

Allows use of both hands. No bruising of fruit. Weight carried on shoulders, instead of back of neck. Full way opening for discharge. No hooks to injure trees.

MR. C. L. IVEY, CYGNET, TASMANIA, WRITES:—
"I have used "Bay View" Fruit Picking Bags for many years, have bought others, some much dearer, but I always come back to the "Bay View." I find them good for 10,000 cases per bag, say 1/3 for every 1,000 cases."

PRICES:

"Bay View" Bag, web straps	12/-
"Bay View" Bag, leather straps	15/-
Do., leather bound, leather straps	20/-

Postage—	1 Bag.	2 Bags.
Within State	1/6	2/-
Adjoining State	2/6	3/6

SOLE MANUFACTURERS: FOTHERINGHAMS Pty. Ltd.
118 CHARLES STREET, LAUNCESTON.

VICTORIAN AGENT F. R. MELLOR
452 QUEEN STREET, MELBOURNE, C.1.

You ought to read these six booklets

THE A.M.P. Society has prepared six folders and booklets for those young men and women who want to get ahead financially; who want to strengthen themselves so that they and their families may be prosperous and secure.

These six folders are named in the coupon below. Put a cross against those you wish to read (we suggest that you put a cross against all six) and send the coupon to the nearest A.M.P. office. Reading the folders may give you a new outlook on life and its opportunities. You could not spend a twopenny stamp in a more fruitful way. Send the coupon to-day.

USE THIS COUPON

To the A.M.P. Society.

Please send me the folders marked with a cross in the squares below. It is understood that I put myself under no obligation by sending for these folders. They are absolutely free.

- ☐ You! What has the Future in Store?
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- ☐ Peace of mind.

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The Largest Mutual Life Office in the Empire.

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Dried Fruit Notes

Dried Fruit Conference

Advertising Increases Sales: Further Plantings Discouraged

A meeting of the Consultative Committee of the various State Dried Fruits Boards was held in Melbourne on January 30, 1941, at which all the Boards were represented with the exception of the W. Aust. Board. Those present were:—Mr. Parker J. Moloney (Victoria), who presided; Mr. G. J. Evatt (N.S.W.), and Mr. Hugh Crawford (S. Aust., in the absence of the Chairman, Mr. G. A. W. Pope). Also in attendance were the Secretary of the S. Aust. Board (Mr. W. N. Twiss), and the Secretary of the N.S.W. Board (Mr. G. A. Try).

Mr. G. A. W. Pope was appointed Chairman for the ensuing year.

Following upon the passage of legislation in Queensland to prevent illegeal trafficking in dried fruits, Mr. C. N. Hall had been appointed an Inspector in that State.

Further Plantings Discouraged.

The question of further plant- 1941 indicated that this rate would not be sufficient to meet the estimated expenditure of the Boards for the year and, therefore, recourse may require to be made to the Board's reserve funds.

Home Consumption Quotas.

A statement, showing estimated production for the year 1941, was submitted, together with figures showing the annual normal Commonwealth consumption of each variety of dried fruits, and the following opening home consumption quotas were recommended:—Currants, 17 per cent.; Sultanas, 14 per cent.; Lexias, 20 per cent.; Prunes, 100 per cent.; dried Peaches, 65 per cent.; Apricots, 60 per cent.; Nectarines, 95 per cent.; Pears, 40 per cent.

Subsequent to the taking of these estimates, advice was received by the Committee of serious rain damage to Currants in the irrigation areas. When the extent of this damage can be definitely assessed, it may be necessary to make an early increase in the Currant quota.

Successful Publicity.

The meeting of the Dried Fruits Publicity Committee followed that of the Consultative Committee. A comprehensive report on the activities of the Committee was submitted by the Chairman (Mr. Parker J. Moloney), which, amongst other interesting matters, revealed a progressive increase in the Commonwealth sales of dried fruits—an increase which was attributed largely to the advertising campaign which is being conducted throughout the Commonwealth by the Committee.

GRAPES FOR DRIED FRUITS.

Extension Not Warranted.

Production Steadily Increasing.

In reply to a statement reported from Mr. H. Hanslow, of the Victorian Water Commission, in which he favored a compulsory extension of the dried fruits industry after the war, Mr. P. Malloch, representing the dried fruits industry, pointed out that figures from 1925 showed a steadily rising production in the industry, from 37,217 tons to 95,000 tons for 1940. Without any expansion due to Governmental policy or development schemes, the output of dried fruits had doubled since control was instituted, and a crop of up to 110,000 tons could now be produced in the existing areas. The industry could not understand why the Government claimed that there must be more expansion of planting, when the area was already steadily increasing.

DRIED FOODSTUFFS FOR BRITAIN.

Investigation in Australia.

The Assistant Minister for Commerce recently announced that the Commonwealth Government would undertake a survey of Australia's capacity to supply increased quantities of dried fruit, dried milk and dried egg products to meet supplies needed by Britain after the war.

Because of probable changes in the diet of the civil population in Great Britain, Mr. Anthony said, Britain would probably require an additional 50,000 tons of dried milk in the near future and much greater supplies of dried eggs and dried fruit. The survey would have four principal objectives: To determine the present facilities and the normal capacity for drying whole and skim milk, eggs and tree fruits; the possibility of extending the output capacity of present plants; the possibility of manufacturing

CONSIDERATE.

"Your school report is disgraceful, Bobby. Aren't you ashamed of yourself?"

"Dad, you promised me 10/- if I brought home a good report, and mummy told me you couldn't afford it."

Dried Fruit Notes—(*Continued*)

suitable food-drying machinery in Australia to permit extension of plants; and the duration of the drying season for each article and the feasibility of extensions.

The Government had appointed a fully qualified engineer to make the survey, Mr. Anthony said. Its decision followed a recommendation by Dr. J. R. Vickery (Chief of the C.S.I.R. Division of Food Preservation and Transport) that, because of the international position, Australia should prepare to handle a greater tonnage of dried foodstuffs.

MILDURA SUFFERS DAMAGE.

Losses From Rains.

Following the heavy rains experienced in Victoria at the end of January, much damage is reported by Mr. A. V. Lyon, of the Merbein Research Station. Serious losses in both quality and quantity in the Zante variety of Currants is expected, as ripening was well advanced in this variety, and Currants were most susceptible to rain damage. Currants made up about 25 per cent. of Mildura district plantings.

Sultanas were less affected, as ripening was not so advanced. If favorable weather followed, the bulk of this variety of Grape should be safely harvested, although a loss in quality must be anticipated. Sultanas were the main Mildura crop.

Late Grapes were still in the early stages of maturity, and little damage to them was expected.

Before any estimate of the financial loss could be made, extensive inspection of the 33,000 acres of Grapes would be necessary, as both rainfall and damage in this area had been variable.

THAT'S ONE WAY TO ABSORB SURPLUS FRUIT.

A report from California states that the Surplus Marketing Administration of California bought up 5,000 tons of surplus dried Freestone Peaches from growers and distributed them to needy families and for school lunches for under-nourished scholars. This eliminated a large market surplus caused by a particularly heavy production, and loss of export markets owing to the war in Europe. It's an idea for Australia.

DRIED FRUIT LEVY.

4d. in Sth. Africa.

The South African Dried Fruits Board in 1941 will collect a levy of 4d. per 100 lb. on all dried fruit bought from growers. Payments are to be made monthly direct to the Board.

DRIED FRUIT PRICES IN ENGLAND.

Profiteering Alleged.

A report from London on December 10 stated that housewives were complaining that grocers immediately raised the prices of dried fruits after Lord Woolton's announcement that little canned fruit would be available next year. In reply, the Food Ministry stated that there was no justification for the reported rise in dried fruit prices as the Government buys dried fruit at fixed prices, and it is sold to grocers at the normal price.

Currants and Sultanas were plentiful, but Raisins were restricted, whilst Figs were almost unobtainable from producing countries. It is being demanded that control be taken of all canned fruits to prevent profiteering.

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VICTORIA

Crop Conditions and Prospects

SEASONAL SPRAYING HINTS

Horticultural conditions prevailing in Victoria for the month of January are reviewed in a report issued by the Department of Agriculture. The heavy rainfall which occurred late in the month in all fruitgrowing areas will ensure the satisfactory development of Apple and Pear crops.

In the Goulburn Valley, harvesting of the W.B.C. crop commenced earlier than for a number of years because of the advanced maturity of the fruit. High quality fruit is being harvested and losses from Codling Moth infection are very light. A heavy canning Peach crop is expected, but early maturing varieties were small because thinning was insufficient.

Apple growers have received full benefit from the rain. Although crops are heavy, fruit is coming up to size and is remarkably free from blemish. Some evidence of Summer Black Spot has been noticed on fruit. Where this occurs growers are advised to apply a spray of lime sulphur, strength one gallon to eighty. Woolly Aphis has increased in some of the cooler Apple-growing districts, probably because the weather conditions have not suited the development of the parasite, Aphelinus mali. If a heavy infestation is present on Apple trees, a pint of nicotine sulphate should be included with the Codling Moth sprays. Red Spider infestation is noticeable on some Apple and Pear trees. Where Summer sprays of white oil emulsion are used for Codling control, Red Spider is kept in check, but Winter Sprays of red oil or lime sulphur are also necessary. After the humid weather, which suited its development, some loss from Brown Rot in stone fruits is expected in southern districts.

Citrus growers in the North-east will benefit by the rain. In this district where growers rely on the natural rainfall, trees were beginning to show signs of water shortage. Prospects for crops of Navel Oranges and Valencias next season in the Murray Irrigation Area are not bright, present indications being that the crop will be considerably below average. In the Swan Hill district, winds have been the cause of blemished fruit on the exposed side of trees. At Mildura Citrus Red Scale has increased in prevalence and some difficulty is being experienced in fumigation because of short supplies of material.

Vine growers in the Mildura area were not so happy about the rain as were fruitgrowers in other parts of the State. At this period of the year, when healthy growth of vines and fruit is favored by warm, dry conditions, the wet humid weather has caused considerable losses. The heavy rain has damaged the Currant crop and a loss of some thousands of tons is expected. Sultanas and other Grapes were not so badly affected.

Bacchus Marsh: The Apple crop in this district is reported to be the heaviest seen for many years, and thinning out has been heavier than usual. The December rains were most welcome. Jonathans are particularly good, and although some other varieties are quoted as patchy to light, the average sizes are well up to standard.

Pakenham: One of the heaviest settings of Yates Apples is reported from Pakenham for many years, and thinning out is in full swing.

One grower went to the trouble of counting the Apples he pulled from one of his biggest trees. and found that they numbered 6,000.

Good showers in December and at the beginning of January were followed by further falls, totalling two inches in some parts of the district. The bulk of the fruit is particularly clean. The Jonathan crop is good, with some Apples already up to 2⅜ inches in size. Granny Smith, Stewarts and Rokewoods also promise good yields. Delicious are patchy, but the crop on the whole is likely to be medium to good. Of all the varieties grown extensively here, Romes and London Pippin are practically the only ones of which the setting is light.

Harcourt: The Apple crop is developing satisfactorily. The recent rains benefited orchards and materially assisted water storages.

ORCHARD EQUIPMENT.

In an advertisement appearing in this issue, Mr. F. R. Mellor, of 452 Queen-street, Melbourne, right opposite the Victoria Market, offers many classes of orchard equipment at cheap prices to effect clearance. Amongst some articles mentioned are a solid kauri dipping trough, only shop soiled, a kauri spray vat, red oxide powder for making cheap paint, the new style sizing rings for all commercial sizes of fruit, fruit picking ladders, stencils cut to order and many other small lines which the orchardist requires. Mr. Mellor carries a large stock of cultivating machinery as well. Write him for quotes or look in at his showroom when at the market.

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Citrus News and Notes

MAINTAINING THE FLAVOR

Bitterness in Orange Juice.

WHERE large quantities of Orange juice are required, squeezing some time before serving and storing the juice often results in bitterness developing, according to reports from hospital dietitians. In commenting upon this factor, Mr. W. R. Jewell, M.Sc., of the Victorian Department of Agriculture, says:—

The development of a bitter flavor in Orange juice on standing a few hours is quite a common occurrence. It is due chiefly to the presence of a glucoside, the main sources of which are the inner peel and veins, and the segment walls. Oxidation and other changes, which proceed after extraction of the juice, lead gradually to the development of the full amount of bitterness possible with the particular content of glucoside in the juice. This explains how it is that a bitter flavor can, and does, develop in pure Orange juice an hour or two after extraction.

Among methods of keeping this unattractive flavor to a minimum are:—

(a) Choice of variety.
(b) Selection of fruit at the best stage of maturity.
(c) Extraction of juice under the best conditions.

With regard to (a), the Valencia is outstanding among Oranges for relative freedom from bitter taste in juice, provided that (b) and (c) are favorable. The importance of (b) is that even slightly immature fruits contain much more glucoside than those at optimum maturity. Immature fruit which has been artificially colored, as by the use of ethylene, might well be a contributory cause of the trouble.

If (a) and (b) have already been provided for, and undue bitterness is still in evidence, it is likely that (c), the design or operation of the extractor is not the most suitable for the line of fruit being handled. Experiments have shown remarkable results, according to the method of preparation of the juice, in eliminating the bitter taste of Orange juice from fruit which gave bitterness within two hours when reamed out in the ordinary way. It is of interest to note that storage at 32 deg. F. did not give any effective control of bitterness in those experiments.

When the extractor used is an electrically-driven reamer type in which two important actions are involved, direct pressure and tearing of cell walls, it will be apparent that if either of these is excessive the amount of bitter glucoside will be increased. It may be possible to adjust either the pressure applied, or the speed of the reamer cone, or both, and thus reduce the resulting bitterness. As well as being factors which determine partly the amount of glucoside extracted, these variables also influence the extent to which the juice is aerated (and therefore oxidised) during the extraction process.

If control along the three lines given above is not practicable, or proves ineffective, two further devices may be tried:—

(1) The addition of a small proportion of Orange oil, pressed from the outer-peel may be effective in masking the bitter taste.
(2) De-aeration of the juice prior to bottling, by vacuum treatment, may delay development of bitterness.

1940 ANNUAL REPORT.

California Fruit Exchange.

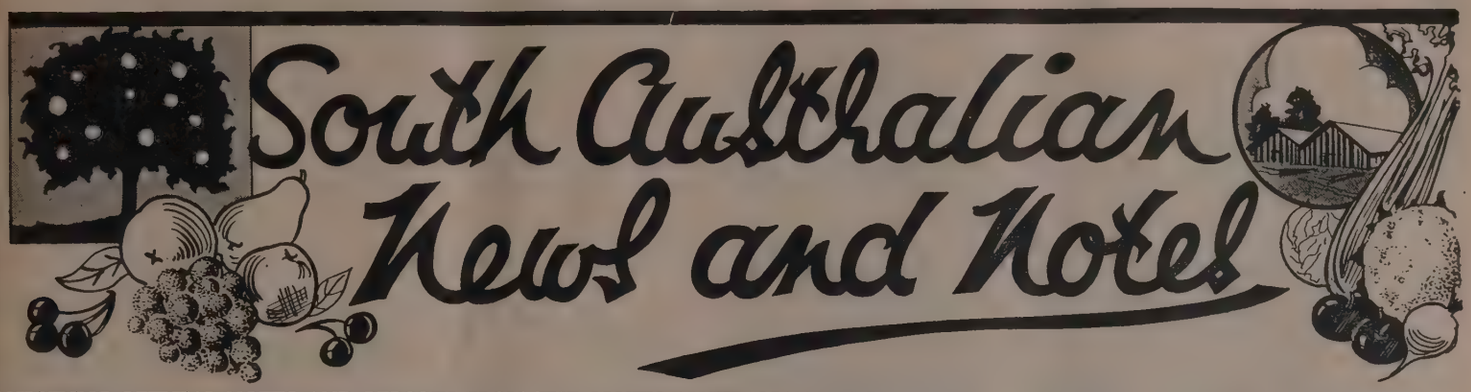
Quoted as the largest citrus growers' and sellers' organisation in the world, the annual report of the California Fruit Growers Exchange is of interest to Australian growers. Although 1940 saw the largest crop on record, and growers received a better return than for many years past, many did not receive enough to meet the extra charges upon keeping their properties in full productive state. Quality and size were satisfactory and consumption excellent at only moderate prices.

Legal disturbances affected the industry during the year and the report states: Legal proceedings are expensive to all concerned as well as costly to marketing. They require energies and resources which could, to better purpose, be devoted to increasing consumer demand and widening distribution, the most essential necessity confronting the industry to-day.

Showing the volume of business done by this co-operative organisation, it is stated that the Exchange handles 74.2 per cent. of all citrus fruit produced in California and Arizona. The total shipments comprised 56,098 car loads of Oranges, 2,084 cars Grapefruit, and 15,045 cars Lemons all packed in cases. Loose fruit represented 10,004 car loads. The Exchange is run economically and the total cost to growers, for marketing and administration but excluding advertising, averaged 5.34 cents per case (2.67 pence).

The European war practically stopped all trans-Atlantic trade in U.S.A. citrus fruits, but by concentrating on Philippines and Hawaiin markets, over 1,000 car loads were exported. In addition, **domestic consumption was increased by means of publicity campaigns**, Sunkist educational material in schools, co-operation from stores, movie and talkie films in theatres, etc., and many other avenues that could be exploited to advantage.

(Continued on page 22.)



INCLUDING OFFICIAL NOTES AND REPORTS FROM THE SOUTH AUSTRALIAN FRUITGROWERS' & MARKET GARDENERS' ASSOCIATION.

S.A. Fruitgrowers and Market Gardeners' Association Incorp.

MEETING OF EXECUTIVE COMMITTEE

THE Executive Committee of the S.A. Fruitgrowers' and Market Gardeners' Association Inc., met in the Board Room, 288A Rundle-street, Adelaide, on Friday, January 31, 1941, at 10.30 a.m.

The President (Mr. H. N. Wicks) was in the chair, and members present were: W. G. W. McLaren, M. G. Hannaford, G. Clifton, L. J. Wicks, W. H. Ind, A. O. Petersen, J. B. Randell, C. H. Ragless, R. G. Hannaford, H. F. Lock, L. B. Pfeiffer, G. H. Schultz, M. J. Vickers, and A. G. Strickland (Chief Horticulturist).

Apologies were received from Messrs. F. A. Wicks, L. G. Pethick, C. J. Pitt, N. T. Hobbs, R. A. Cramond, J. Turner, W. J. Bishop, H. W. Parsons, C. Stanford, M. Packer.

Vice-President: The Secretary intimated that the Vice-President, Mr. C. J. Pitt, had been involved in a motor-car accident which was mainly the cause for his non-attendance at the meeting.

Resolved that a letter be forwarded to Mr. Pitt expressing the regret of the Executive at the accident to him and his family.

Correspondence: Department of Agriculture advising that approval for use of second-hand cases for fruit entering N.S.W. had been extended until December 31, 1941.

Statements of codling moth catches at Blackwood Experimental Orchard also received from the Department. The appreciation of the Association for this service was expressed to the Chief Horticulturist (Mr. A. G. Strickland) by the President.

District Bush and Nursing Society: The general organiser of the Society applied for authority to approach members for fruit and vegetables to assist the Society's work.

Resolved authority be granted.

Branch and Sectional Reports.

Barossa Branch: Mr. H. F. Lock reported that apart from damage to prune crops the phenomenal rains of last week-end on the whole would do more good than harm. Apple and Pear crops in particular would benefit.

Onkaparinga Potato Branch: Mr. L. B. Pfeiffer reported that a survey of the position following the heavy rains showed that generally only a small percentage of the potato crops had been damaged. Further heavy rains within a week or two would have a serious effect. New members were still being enrolled by the branch, and great interest in the branch activities was being evinced.

Celery, Tomato and Soft Fruit Sections: The Secretary briefly reported on behalf of the Chairman of Tomato, Celery and Soft Fruit Sections.

Apple and Pear Section: Discussion arose on Apple and Pear Acquisition, and the President, on behalf of Mr. R. A. Cramond submitted the following recommendation:

"That the Apple and Pear Acquisition Committee be asked to consider the possibility of taking a proportion of the Howell Pear crop if opportunity occurs and circumstances permit of their absorption."

Mr. G. H. Schultz moved:

"That Mr. Cramond's recommendation be adopted and forwarded on to the State Apple and Pear Acquisition Committee."

Seconded Mr. A. O. Petersen. Carried.

Mr. H. F. Lock explained the position of the Barossa district as to Apple and Pear position and moved:

"That it be a recommendation to the State Apple and Pear Acquisition Committee, that growers of Williams Pears in Barossa district be permitted to purchase (after assessment has been made) Pears at 1/- per case for drying purposes only. Also that some growers in the district be granted 'B' class licensed to sell Pears as 'Good' grade at 4/- or less per case, same to be sold so as not to compete with city suppliers."

Seconded Mr. G. H. Schultz. Carried.

S.A. CELERY SECTION

The constitution of the Celery Section requires five members of the Committee to retire annually, and this year Messrs. G. J. Strange, A. J. Hollister, V. W. C. Schultz, A. Floyd and W. Farnham retired by effluxion of time.

Six nominations were received for the five vacancies, and the undermentioned were elected by ballot: Messrs. G. J. Strange, A. J. Hollister, A. Floyd, H. Collins and H. R. Farnham.

The first Committee meeting of the Section was held on January 31, 1941, when Mr. M. Packer was re-elected chairman for a third term.

The chairman extended a welcome to Messrs. H. Collins and H. R. Farnham, new members on the Committee.

Preliminary arrangements for 1941 season were put in hand, and Messrs. M. and W. Packer were appointed as delegates to visit interstate markets prior to the export season opening.

Mr. V. W. C. Schulze, who retired by effluxion of time did not seek re-election, as a committeeman. Mr. Schulze was a member of the Committee for many years, during that time rendering invaluable service to the industry, and the meeting recorded a minute of appreciation of his contribution to the successful functioning of the Celery Section.

TORRENTIAL RAIN IN SOUTH AUSTRALIA.

Damage to Crops and Orchards on Adelaide Plains and Hills Light.

Following a very dry stretch South Australia was drenched by phenomenal rains on January 23 to 25.

Although registrations on the Adelaide Plains and Hills ranged from 3½ inches to 9 inches, the damage sustained was negligible when compared with benefits that will accrue.

Currant Grapes were badly affected also Nectarines and Prunes, but other crops particularly, Apples will be greatly improved.

Potato crops, although slightly affected by blight in some districts were for the most part unharmed and provided no further heavy rainfalls within the next week or two no serious repercussions are likely.

RENMARK DEVELOPMENT.

A Growing Fruit District.

IRRIGATION has played a great part in the development of Renmark as a fruit producing centre. With a population of 2,750 people and an irrigated area of 7,547 acres, the district is becoming highly productive. Five hundred and thirteen homes and 35 other premises include 25 houses built within the past two years. One hundred miles of roads are now made, and two billion gallons of water are used for irrigation purposes each year. The value of the settlement is estimated at £726,000, but is approximately only half of the present market value. The property of the Water Trust is recorded at £110,000, while the electricity plant is valued at £35,000.

The construction of irrigation water channels was commenced four years ago and is now nearing completion, when new extensions will be undertaken. Many well-established orchards are seen, and the district is growing quietly and solidly, so that Renmark bids fair to contribute much to the orchard industry.

IRRIGATION AREA FOR LOXTON.

During a visit of the S.A. Premier (Hon. T. Playford) to Loxton recently, a deputation from the Returned Soldiers' League requested Government to consider putting some 8,000 acres along the river frontage under irrigation. As far back as 1910 surveys made showed that this area was suitable for irrigation, even before Berri and Barmera had been so surveyed.

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SOUTH AUSTRALIA—(Continued).

The delegation pointed out that with irrigation fruits and fodders could be grown with advantage to the district. The Premier inspected the areas and promised to refer the request to the Flax Investigation Committee. The deputation also asked that consideration be given early to the settlement of returned soldiers from the present war, after peace conditions returned, and not held up until absorption of returned men became desperate, as was the case following the Great War.

Progress Report on Grape Juice Investigations at Roseworthy Agricultural College

(By J. L. Williams, R.D.A., Horticulturist and Oenologist, and A. R. Hickinbotham, B.Sc., B.Ed., Chemist, in the S.A. "Journal of Agriculture.")

THE following is a progress report on investigations relating to the production of unfermented fruit juices, which have been conducted during the past year at the Roseworthy Agricultural College, in collaboration with the Council for Scientific and Industrial Research (Food Preservation Section).

Scope of the Investigation. Grape Juice.

The experimental work connected with Grape juice was divided into five parts, as follows:—

A.—A variety survey embracing 25 separate sorts obtained from the vine variety collection at Fullarton (Adelaide), South Australia.

These Grapes were harvested when they were considered sufficiently ripe and converted into juice. The white varieties were milled and cold pressed and the red and black sorts hot pressed (140 deg. F.). Certain analyses were carried out on the juices immediately after pressing. The object of this survey was to ascertain the suitability or otherwise of our local South Australian varieties for the production of juice.

B.—A ripening study comprising six common varieties harvested from the College vineyard at four different stages of maturity.

C.—In this section, fruit from six different varieties was obtained from the Government Orchard at Berri, South Australia, and converted into juice to enable a comparison to be made between juices from both irrigated and non-irrigated Grapes. These Grapes were riper than those in section A and consequently only general comparisons can be secured.

D.—Clarification studies. This part of the work was undertaken to clear up the question of the utility of primary enzymatic clarification of Grape juice in comparison with the gelatine: tannin method. The latter is usually recommended for Grape juice, is stated to give satisfactory results in European Grape musts, and is less costly than pectinase preparations. Pectinase clarification has been almost universally applied to the treatment of Apple juices.

The clarification of Grape juice by the pectinase preparation Filtragol in a set of trials in the College laboratory during the 1939 vintage season demonstrated the possibilities of this method for South Australian Grape juices under College conditions. On these grounds it was decided to include further trials using the pectinase method of clarification on a range of juices in the laboratory and on a semi-commercial scale in the College winery.

E.—Blending and adjustment of acidity. Here it was intended to secure information on the blending of juices and the adjustment of their acidity to improve palatability. For this purpose the juices in parts A and C were used.

Results of the Investigations.

Due to the incomplete nature of the investigations, it is not intended to do other than generalize on the results obtained this season. The Grapes obtained from Fullarton were of poor quality due to the extremely unfavorable season, which resulted in the fruit being sun scorched.

Also, it is considered necessary to collect data from the results of investigations carried out during at least two favorable seasons.

The Raw Product—Grapes.

Owing to the poor condition of the grapes used in the variety survey, those juices which were well placed this season may occupy a less prominent place in the merit order next season.

Of the 14 white sorts tested this season, St. Emillion (Syn. White Hermitage), Royal Madeline, Sercial, Trebbiano, Muscat Gordo, White Frontignac and Riesling could be classified as very suitable for the production of white juice. Two other varieties were classed as fairly good, viz., Sherry and Temperana, while those classed as poor were Pedro Ximenes, Sweet Water (Palamino), Pinot Chardonnay, Doradillo and Waltham Cross.

Of the red sorts, Shiraz and Aramon were considered the best, followed by Black Muscat

GRAPE JUICE INVESTIGATIONS IN SOUTH AUSTRALIA—(Continued).

of Hamburgh, Labrusca, Isabella and Flame Tokay. The remainder of the black varieties tested, viz., Royal Ascot, Grenache, Mataro, Carignane and Ulliade, were considered very poor.

It was quite apparent that those varieties which had suffered most from the extremely hot weather during last Summer made the poorest juices. The fruit needs to be quite fresh and well developed to make a satisfactory product.

Juices made from White Hermitage and Shiraz were considered the best of the white and red juices respectively. The white juice tested 10.1 deg. Baumé (18.2 deg. Brix.), had a titratable acidity of 10.2 grs. per litre expressed as tartaric acid, and a pH of 3.2. The corresponding figures for the red juice of Shiraz were 12.5 deg. Be.; 8 grs. acid per litre and pH 3.6. The white juice had a very fair flavor and was fairly well balanced in respect to the acid: sugar ratio. The chief fault in this juice was that it lacked somewhat in natural fruit flavor and was perhaps a trifle too acid. The juice, however, provided an excellent basis for blending. In fact, it is very unlikely that a really good juice will be secured in the commercial sphere without resort to blending. For example, a juice made from Muscat Gordo possesses ample fruit flavor, but has a very low total acidity and is somewhat insipid. When blended with a high acid juice or if the acidity be raised with citric acid the quality is immensely improved. The Muscat Gordo will only produce its full flavor when grown in a warm climate and then only at an advanced stage of maturity, i.e., when the gravity approaches 15 deg. Be. (27 deg. Brix.). The blending of high sugar: low acid juices with low sugar: high acid juices presents no difficulty. The adjustment of the acidity with citric acid is justifiable in order to balance the flavor when needful.

As mentioned, the red or black sorts Shiraz, Isabella, Labrusca, Black Muscat and Aramon produced very good colored juices. The first four red sorts give a low yield of juice per ton but the juices have distinctive flavors. Aramon gives a high yield of juice per ton but is neutral flavored and low in acid. A juice made from Mataro Grapes grown at Fullarton made a poor juice, but a juice from the same variety grown at Berri (irrigated area) was of very much better quality.

Maturity of Fruit for Harvesting.

In our experiments, and using Grapes from the College vineyard, the most suitable acid: sugar balance for white Grapes was obtained when the fruit was picked with a gravity of between 10 deg. to 11 deg. Baumé and an acidity of from 9 to 10 grs./litre expressed as tartaric acid. Under the same conditions a gravity of 12 deg. Baumé and an acidity of 8 to 9 grs./litre was indicated for red or black Grapes. However, as the season was abnormal, too much reliance should not be placed on these maturity standards. Two or more seasons' work is needed to secure definite data on this point. High yields of juice would be secured from such material, probably in the region of 180 gallons per ton. A high juice extraction per ton is necessary to keep production costs at a low figure if the industry is to succeed.

The Grapes used in part C, from an irrigated area, were of excellent quality and this was reflected in the juices. However, these latter were too high in sugar and too low in acid to allow satisfactory comparisons to be made with the juices from non-irrigated Grapes. When these juices were acidified with citric acid a vast improvement was apparent.

In warm localities it is evident that the full Grape flavor is not developed at the maturity level indicated above. Under such conditions the full flavor desired is not secured until the fruit is more fully matured.

In a cool locality, however, a fuller flavored juice would be secured at a much lower sugar and higher acid concentration. More work is needed to determine satisfactory maturity standards for Grapes in different localities.

Satisfactory results could be secured by blending full flavored high sugar: low acid juices with more neutral flavored low sugar: high acid juices. Juice from Muscat Gordo, for example, has a high level of flavor but is too high in sugar and too low in acid when the Grapes are grown in a warm to hot location. Such a juice, however, forms an excellent base for blending with thinner and more acid juices.

Processing the Fruit.

There are two cardinal rules connected with the handling of Grapes, rules well-known to the wine makers and quite as important, if not more important, in the preparation of juices. The first relates to the general hygiene in the factory. Vessels, Grape mill and all other apparatus used in the processing of the fruit must be scrupulously clean. The best disinfectant and cleansing agent available is hypochlorite of sodium used according to the directions given by the vendor.

Block of Walnut Stocks at the nursery of L. J. Wicks, Highbury East, Sth. Aust.

The second rule concerns the Grapes themselves. They should on no account be hot and damaged when received at the factory. Fermentation may have already commenced in such material and it will be found almost impossible to make a satisfactory juice from it.

It is also essential to insist on securing fruit free from mouldy bunches, or bunches damaged by birds. Such fruit imparts decided off flavors to the juice.

Washing the Fruit.

Large numbers of yeasts are attached to the skins of ripe Grapes. When the Grapes are crushed most of these yeasts become detached from the berries and are present in the juice. As a result, alcoholic fermentation may commence within a few hours, thus rendering difficult the preliminary clarification of the juice. If the fruit is washed prior to crushing, considerable numbers of yeasts may be removed and the onset of fermentation thereby delayed. This operation is considered essential to permit the preliminary clearing of the juice, unless the latter is treated with a regulated dose of SO_2.

Milling.

White Grapes are crushed in a suitable mill and the stalks included to facilitate the separation of the juice from the solids (marc). This is essential to obtain a high juice yield. In the commercial sphere a "Blaquiere" type Grape mill would be most suitable. This type of mill is standard equipment in many of our South Australian wineries.

In this mill, the bunches are crushed between plain or fluted metal rollers and the stalks are not removed from the must (skins, seeds, pulp and juice). A foredrainer is usually attached to this mill in which the greater portion of the juice is removed.

Red and black Grapes would be handled more suitably in a "Whitehill" type mill, in which machine the stalks are removed. Red Grape must is heated in a steam jacketed kettle in order to permit the extraction of color pigment and tannin from the skins. A temperature of 140 deg. F. was used in our experiment. Above this temperature a decided cooked flavor is imparted to the extracted juice. This red must is hot pressed and a high yield of juice is secured.

Pressing.

The marc retains a considerable quantity of juice. Extraction is secured most suitably in a hydraulic press, provided with the necessary cages, trucks and pump. Hydraulic presses are standard equipment in our wineries and are essential to secure high juice yields. Hydraulic rack and cloth presses are very good in this respect. If press cages are used, the marc needs to be re-pressed to secure a good yield of juice.

The hot marc of red Grapes, despite the absence of the stalks, gives a better juice extraction than the cold marc of white Grapes.

When white grape must was heat treated and pressed, a higher degree of flavor was apparent in the finished product in some cases. However, hot extracted juice was more difficult to clarify later and is apt to ferment before it can be separated from the deposited sediment. On this account the hot pressing of white must is not recommended. The marc, after leaving the press, has a decided value, containing valuable by-products and should not be wasted.

[This article will be concluded in the March "F.W."]

FOR SALE **IVANHOE ORCHARD,**

One of the cleanest and best producing Orchards in the State. 2,600 trees, comprising mostly best varieties Grannies, Yates, Cleos, Jonathans. At present carrying about 6,000 cases first grade fruit. Complete equipment, horses, cultivators and all implements in good order. Packing shed, case shed, Lightning grader and saw bench driven electrically, spray plant, motor lorry, good dwelling house, water and electricity laid on.
No disease, no Codling Moth or Black Spot, no Couch. Mile from Station.
Bitumen Road. Good reason given for selling. INQUIRIES INVITED. **H. LAKE, BRIDGETOWN, WEST AUST.**

The South Australian Fruit Marketing Association, Inc.

Executive Committee Meeting

The monthly meeting of the Executive of the S.A.F.M.A. was held at Adelaide on January 31, 1941.

Present: Messrs. J. B. Randell (Chairman), A. G. Strickland, M. J. Vickers, S. M. James, A. O. Petersen, L. J. Bishop, R. G. Hannaford, C. L. Winser, P. R. B. Searcy, R. O. Knappstein, H. N. Wicks, L. G. Heading, R. B. Pritchard, W. W. Miller, R. H. A. Lewis, F. Rowley and the Secretary. Apologies were received from Messrs. M. G. Basey, A. R. Willsmore, G. S. Queale.

Rates of Payment.

Mr. H. N. Wicks reported on the meeting with Federal members when the differential rate of payment for Apples between Victoria and S. Aust. was discussed, a copy of the telegram sent to the Minister for Commerce was read, and Mr. Wicks stated that the Premier (Mr. Playford) still had the matter in hand and was doing everything possible to obtain a satisfactory adjustment.

Continuation of S.A.F.M.A.

Mr. A. O. Petersen asked members to consider whether it was advisable to carry on the Association at present, or would it be an advantage to go into abeyance for the duration of the war. He thought there was unnecessary duplication of work at present.

Mr. C. L. Winser suggested that meetings of the Growers' Sub-Committee might be suspended during the Summer months when growers were very busy.

Messrs. F. F. Redden, R. O. Knappstein, P. R. B. Searcy, and J. B. Randell supported the continuance of S.A.F.M.A. and pointed out that the Association was concerned with many phases of the industry and not solely with export shipping problems, and many matters could be handled by the Association to greater advantage than would be the case if the present two separate organisations amalgamated.

In view of the fact that Mr. H. N. Wicks was working on a scheme to overcome the present difficulties it was agreed to let the matter stand over for further discussion at a later date.

Growers' Sub-Committee.

At the meeting of the Growers' Sub-Committee Mr. S. M. James gave an interesting and instructive paper on "Science as an aid to the Fruitgrower"; this was followed by a discussion and a vote of thanks to Mr. James was carried with acclamation. At the February meeting Mr. H. N. Wicks would speak on "Affinity of Varieties."

Williams Pears.

Questions were asked in regard to the position in South Australia re Pears for canning; as this State appeared to be at a disadvantage compared with the Eastern States. Mr. P. R. B. Searcy explained the position fully, and set out the steps that were being taken at present to relieve the position.

You Can't Get Good Prices *for* Bruised Fruit

PROTECT YOUR FRUIT WITH

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Obtainable from Leading Distributors throughout Tasmania

In the following Sizes and Quantities:—

DUMP CASES—		
SIDES (Plain or Vented)	17 x 14	500's
	17 x 13	500's
	17 x 8½	1,000's
TOPS AND BOTTOMS	17 x 8	1,000's
CANADIAN CASES—		
SIDES	17 x 10	1,000's
	17 x 10½	1,000's
TOPS AND BOTTOMS	17 x 11	1,000's
PEARS—		
SIDES	13 x 6	1,000's
TOPS AND BOTTOMS	13 x 12	500's

Also Combination Packs of:—

DUMPS	CANADIAN	PEARS
(500 17 x 13)	(500 17 x 10)	(334 13 x 6)
(500 17 x 8)	(500 17 x 11)	(334 13 x 12)

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THE SOUTH AUSTRALIAN FRUIT MARKETING ASSN. INC.

February Meetings.

The February meeting of the Association will be held at the Secretary's office, 83-4 Brookman Buildings, Grenfell-street, Adelaide, on Friday, February 28, 1941.

Growers' Sub-Committee commencing at 1.45 p.m. Speaker: Mr. H. N. Wicks. Subject: "Affinity of Varieties."

Executive Committee Meeting will commence at 2.45 p.m.

E. WHITFIELD MILLS.
Secretary.

GROWERS' SUB-COMMITTEE.

Science Aids Fruitgrowers.

At a meeting of the Growers' Sub-Committee of the S.A.F.M.A., the Chairman, Mr. S. M. James, read a valuable paper entitled "Science as an Aid to the Fruitgrower." He stated very extensive knowledge was required by agricultural experts involving a long University and practical training to enable them to fit themselves for the task of assisting the primary producer. The Departments of Agriculture in the various States were carrying out work of great value to fruitgrowers, but it was necessary for growers to co-operate with and assist the Department. The perfection of the present day Apples was due to scientific evolution.

Problems which had given him much difficulty were in regard to manuring, spraying, and marketing. Scientific research was necessary to ensure that money expended for manures and sprays was not wasted; while many problems arose in connection with marketing.

ACQUISITION OF APPLES AND PEARS.

Provision for Excluded Varieties.

The Assistant Minister for Commerce (Mr. Anthony) announced that in respect of the varieties of Apples and Pears excluded from marketing under the Acquisition Scheme this season, growers would be paid compensation on the basis of 1/- a tree for Apples and 1/6 a tree for Pears.

Mr. Anthony pointed out, however, that in special instances fruit of excluded varieties may be accepted for marketing under the direction of the Australian Apple and Pear Board and in such cases compensation would be payable on a basis of quality and size to be determined. Where fruit was accepted under these conditions the payment on a tree basis would, of course, not be applicable.

CANNING AND JAM FRUITS

Goulburn Valley News and Notes

DURING THE MONTH of January tropical rains fell throughout the Goulburn Valley, when 9 inches of rain has been recorded for the month, which has definitely broken the spell of twelve months extremely light rainfall.

On Sunday, January 26, a strong southerly gale blew all day, when thousands of cases of Pears were blown from the trees, but in spite of this loss, there are still sufficient Pears left for normal requirements. Fortunately over half the crop had already been harvested, otherwise the losses would have been much heavier.

The rain will prove of great benefit to the late canning Peaches, and on present appearances there should be a good crop of well-grown, fine-quality fruit. The rain also solved the irrigation problem for 1941, as storages were very low.

Processing Pears in Three Goulburn Valley Canneries.

The three Goulburn canneries are working at high pressure (including overtime) in canning the prolific crop of W.B.C. Pears which are of excellent quality and free from Codling Moth and a very fine pack should result.

The district generally presents a scene of great activity. Everybody is working and fortunately sufficient labor is available to cope with the rush of work.

The packing shed of S. J. Perry & Co. at Shepparton presents a scene of great activity, handling and packing the W.B.C. Pears for the Australian markets, under the Apple and Pear Acquisition Scheme.

Many growers have been issued licences to pack and grade their own fruit under Government supervision.

Shepparton Tomato Growers' Association.

The Shepparton Tomato growers have formed a strong and virile Association, with Mr. L. Pithers President and Mr. A. T. B. Goyen as Secretary, and at present are on strike in order to obtain a better price for their produce. They have definitely agreed that they will not supply sauce Tomatoes to the manufacturers unless they receive the minimum price of 2/3 a case on farm.

The present price being paid by the manufacturers is 2/- per case delivered at factory Melbourne, which means that after paying freight and providing case, it does not nett them 6d. per case, which is ridiculously low, and a ruinous price, and no industry could carry on under such condition. Many growers declare that they will plough their crops in unless they get 2/3 per case on the farm.

Government intervention is being sought and it is hoped the strike will be satisfactorily settled in a few days. The Tomato growers deserve every success in their fight for better prices and conditions in their industry, which has become a very important industry in the Shepparton district.

Later: It is reported growers have accepted the manufacturers' offer of 1/8 f.a.q. for ungraded Tomatoes, 2/- for special quality, and 2/5 for canning quality. "Under Necessity."

Tomato Field Day at Government Experimental Farm at Tatura.

Representatives of the Department were Messrs. Basil Krone (Fruit Packing Expert), R. S. Harper (Officer in Charge of Tatura Research Orchard), F. M. Maher (Vegetable Research Officer), F. J. Bullock (Orchard Supervisor), and W. Gayford (assistant to Mr. F. M. Maher). A large number of representative growers were also present.

The growers present admitted that they had gained much knowledge and valuable information as a result of their visit to the Horticultural Research Station at Tatura, where plots of Tomatoes were being cultivated by the Department of Agriculture.

In the small area available for this work they saw 34 varieties being produced under commercial conditions. They were able to view the effects of staking and non-staking, and took a lively interest in the system followed in recording and checking production.

Murray Valley Irrigators. Seek £150,000 Annual Grant for Extensions.

That the Government be asked to grant £150,000 this year for the extension of the Murray Valley Irrigation Scheme, and a similar amount or more if required be provided each year thereafter until the Scheme has been completed, was the principal resolution agreed to at a meeting of the Murray Valley District Irrigation League, held at Waaia.

During the discussion it was stated that opposition had been expressed towards the Scheme, but Mr. E. P. Kendall (Divisional Engineer), of the Water Supply Commission, stated that the Commission would not take notice of objections. The Commission's difficulty would be to find enough water to give rights to those desiring water. Those who would not accept water rights at the inception of the Scheme would not be supplied afterwards.

CANNED FRUIT JUICES.

Tremendous Development.

GRAPEFRUIT JUICE was one of the earliest canned fruit juices to become popular in America, where fresh Grapefruit is so popular. This was followed by Tomato juice in cans, which has eclipsed all fruit juices in popular favor. Even so, Grapefruit juice in cans has made rapid expansion, and increased from 287,000 cases in 1931 to 6,813,000 cases in 1937. Orange juice, Lemon juice, Prune juice and other fruit juices are also rapidly increasing.

Since 1937, the production of all fruit juices in U.S.A. has been greatly increased. In that year, 120 million gallons of canned juices were manufactured, whilst Hawaii also produced 7½ million cases and bigger and new plants are being opened every year. Even Egypt, which has never been credited as being a large fruit country, is developing the fruit juice industry upon commercial lines.

Parallel with the American development naturally goes the efforts of manufacturers to obtain more suitable varieties of fruit that will meet the juice requirements both in quantity and quality, and experiments in growing are being undertaken with **Strawberries, Blackberries, Raspberries, Peaches, Plums, Pears, Rhubarb,** and other fruits. Methods of processing are changing in efforts to retain the natural flavors. Extraction is being done by pressing in linen covers, by pasteurisation and other new methods that are claimed to make the juice both palatable and to retain its natural chemical properties. So far at least the old days of synthetic fruit juices are being left behind.

The modern method of canning delicate foods includes the provision of tin that is not susceptible to rust, taint or corrosion, and the public need have little fear of canned foods. In this connection, tin manufacturers and canneries have greatly assisted in making popular all kinds of canned foods.

The medical profession and dietetists are beginning to prescribe fruit juices as never before, for human welfare, and canned juices will therefore supply much of the increased demand for these valuable beverages.

Canned Carrot juice is one of the latest industries to be established in Vancouver. Special machinery will wash and pulp the Carrots and the juice will be extracted by a special process.

After four years' idleness, a new Brunswick factory will dehydrate Apples for the British market following restrictions on the export of fresh fruit overseas.

SUGAR CONCESSION COMMITTEE.

1940 Annual Report.

The 1940 annual report of the Sugar Concession Committee has now been released and contains much information of interest to the fruit industry.

Whilst more fully reviewed in the 1941 "Fruit World Annual" now available, some of the highlights of the report include the following:—£212,000 was returned to growers by rebates to canneries during 1940, in addition to further rebates to manufacturers of jams and jellies. 42,825 tons of sugar was required to process the fruit last year, an increase of 8,295 tons over the largest quantity in any recent year. It is interesting to note that the proportions of fruit processed in the various States were:—Vic. 45.32 per cent., N.S.W. 23.87, Tas. 13.16, Q'land. 9.70, S.A. 6.98, and W.A. 0.97.

The Commonwealth Government has extended the life of the Committee till August, 1946, so that growers of canning fruit can expect that this industry will not be interfered with except under exceptional circumstances arising.

CANNED FRUIT EXPORTS FOR 1940.

The Canned Fruits Board announces the total exports of Australian canned fruits for 1940 as 1,096,104 cases of 2 doz. 30 oz. tins (or equivalent) covering the three varieties of Apricots, Peaches and Pears. The following table shows the quantity of each variety and the destinations. In addition, fruit salad and Pineapples represent 10,562 and 80,174 cases respectively, or a grand total of 1,186,840 cases.

Country.	Apricots. Cases.	Peaches. Cases.	Pears. Cases.
U.K. . . .	97,941	291,774	362,284
N.Z. . . .	16,825	39,918	940
Canada .	9,968	56,620	7,718
East . . .	23,577	106,913	75,541
Misc. . .	1,214	2,423	2,448
Total . .	149,525	497,648	448,931

A town named Canning, in Nova Scotia, centre of large Apple production yet without a cannery, is now to have a cannery to process Apple products.

FOR SALE

Solid "Kauri" Dipping Trough (Shop-soiled): 5 ft. long, 17 in. wide, 18 in. deep, 57/6. 5 ft. Draining Board, 9/-.
"Kauri" Spray Vat: 80 gal., 85/-.
Cast Iron Pulleys: 8 in. x 4 in., 20/-; 6 in. x 4 in., 15/-.
Red Oxide Powder (for cheap paint): 6 lb., 2/6.
"Trugrade" Sizing Rings: New Style (2⅝, 2¾, 2⅞, 2⅞, 2⅞, and 3 ins.). Strong, accurate, and fold up for pocket. 6/-, postage 8d.
Rubber Stamps: Ink and Pads.
Stencils: Cut to order, Stencil Ink and Brushes.
Newspaper and White Lining, Woodwool.
Banana Cases: Secondhand.
Cases of all Kinds: New and reconditioned.
Fruit Picking Ladders.
Cheap Garden Hose: Dunlop "Atlantic," ¾in. x 1 braid, moulded hose, 5½d. per ft.; 100 ft. and over, 5d. per ft.
F. R. MELLOR,
452 Queen St., Melb., C.1. Phone: F 2387

CITRUS NOTES—(Contd. from p. 16)

Nutritional research, field and laboratory experiments, and many other services to the grower have been extended and marketing methods aimed at developing domestic consumption have been studied. The Exchange sold 7¼ million dollars worth of orchard and packing house supplies to its members during 1940. It collates statistical information, weather reports, market fluctuations, advice upon cultivation, packing, pests, etc., for release to its members. Its service to the industry is on a co-operative basis and is given at bare cost. The report closes with the claim that its fundamental function is to get a better return per acre for its members.

CITRUS AS FERTILISER.

Citrus growers of California are certainly out to get everything they possibly can from their crops. In addition to using surplus and culled fruit as stock feed, either fresh or as meal and pulp, they are turning it into fertiliser—and good fertiliser it makes, too. Near some of the larger packing centres, citrus shredding machines have been placed. Tests have proved the value of the shredded product when returned to the soil in the form of fertiliser. The machines shred the fruit at the rate of five tons an hour. The shredded mass is then carted to the citrus groves and dumped and spread. The whole cost of the operation is said to be no more than the cost of dumping the fruit in the ordinary way, states "The Citrograph," California.

Here is what the chemists say about shredded citrus fruit as fertiliser:—

"From the chemical determination it is clearly evident that the Orange waste is of equal value in all respects to dairy manure."

The inventors developed the process after working on the idea that cull fruit could be turned to practical use at small expense, and at the same time eliminate the criticism directed at the dumping of apparently good fruit.

• THE MARKET GROWER •

Victorian Tomato Growers Want Higher Prices

Claiming that Tomato sauce manufacturers were exploiting the Tomato growers and were buying from Italian growers, some not even naturalised, at prices that allow no margin for production costs, a deputation awaited on the Minister for Agriculture, Mr. Hogan, on January 30, representing returned soldier and other growers in the Shepparton area.

It was stated that Melbourne factories were only offering 2/- per case landed in Melbourne. Out of that growers had to pay 8d. for the case and freight about 10d. to 1/-, thus leaving only 4d. or 6d. per case to cover cost of planting, packing and transport. This works out at 9/16ths of a penny per lb., although Tomatoes were being retailed at 4d. per lb.

In commenting upon the situation, Mr. L. A. Pither, President Victorian and Shepparton Tomato Growers' Association, stated that it is impossible to grow Tomatoes at less than 2/3 per case. Mr. A. H. de Grandi, President Bendigo Tomato Growers' Association, asked Mr. Hogan to confer with the manufacturers with a view to relieving the position. At present he said growers were being starved and sweated. Mr. Hogan expressed his willingness to ask manufacturers to discuss the position with him.

The position was considered so critical in Shepparton that a meeting of growers was held on January 29, and a telegram despatched to Prof. Copland, Prices Commissioner, stating that growers require 2/3 per case. Prof. Copland replied that he could take no action as price regulations relate only to maximum prices.

Growers adopted the attitude that they refuse to pick at 2/-, and several growers, including some Italians and Albanians threatened to plough the Tomatoes in unless they are given 2/3 per case. Meantime the position is serious and growers are talking a strike and picketing to prevent factories obtaining Tomatoes at the lower rate.

At a conference with manufacturers on February 1, called by Mr. Hogan, prices were discussed and the following rates were submitted by manufacturers as prices on the farm, manufacturers to supply cases (approximately 3d. per case) and to provide transport: F.A.Q. ungraded 1/6, better quality 1/10, and canning quality 2/3.

Later: It is reported growers have accepted the manufacturers' offer of 1/8 f.a.q. for ungraded Tomatoes, 2/- for special quality, and 2/5 for canning quality. "Under Necessity."

LETTUCE GROWING.

Lettuce is one vegetable that must be grown quickly to ensure crispness of leaf which is its greatest appeal. Checks in growth will greatly lessen its market return. Both sowing from seed and later thinning out and sowing in a seed bed and transplanting are followed according to the grower's method. In the field rows the seed should be sown thinly, covered with light soil and then tamped down gently.

Cultivation must be done during growing and the soil must be kept moist. If the plants appear to be backward, a liquid manure or a top dressing of nitrate of soda or sulphate of ammonia, 1 to 2 cwt. to the acre, should be given, spread lightly over the ground but not on the plants. Naturally, lettuce must be marketed quickly after cutting.

Ask your seed merchant for the best variety for your soil and climate. For planting in cool months, New York or Neopolitan are good, whilst Iceberg is popular for warm weather planting and gives a good heart and appearance.

TOO MANY VEGETABLES.

Effect of "Dig for Victory."

As showing how the people of England are co-operating in the "will-to-win," a recent report from London stated that so many people are growing vegetables in backyards and gardens that there was a glut of vegetables on the market, and Covent Garden merchants could not dispose of all supplies received, although prices had receded. The position was further influenced by a greater use of canned fruit and vegetables in homes and restaurants.

A later report stated that Oranges were the only fresh fruit being imported, but that the great Covent Garden market was being carried on as usual.

GREEN MANURES.

Poona Peas as Cover Crops.

The mixture of Poona Pea seed with giant cowpea has been found in Queensland to be a success as a green manure, says the Cane Growers' Quarterly Bulletin, but its early maturing character has some disadvantages in the wetter areas of that State. Two bushels of giant cowpea with one bushel of Poona pea provides a satisfactory mixture. The Poona pea gives a rapid early cover and controls weeds; while the prolonged growth period of the giant pea enables the farmer to turn under a good mass of green matter towards the end of the wet season.

It should be noted that if a Poona Pea crop perishes after it has made its growth, but before it can be ploughed under, not all of the benefits of the crop are lost, as many farmers suppose. The supply of nitrogen which it has accumulated still remains in the dead leaf and stems, or is washed into the soil by the rain after the death of the plants. Unquestionably, best results will follow where it is possible to turn the crop under at the height of its succulent growth.

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WRITE FOR STENCILS.

APPLES AND PEARS.

Varieties Recommended for Queensland.

The Stanthorpe area is probably the best Apple district in Queensland, and that State's Agricultural Journal states that although the Granny Smith is easily the most popular variety, there is no cause to anticipate that when the vigorous planting programme for this variety, now going on, comes into bearing, there will be a surplus of Granny Smiths. Stanthorpe growers believe that their Apples are as good or better than any grown elsewhere in the Commonwealth. They store well and bring good prices.

In addition to the Granny Smith, which should be the main variety, Delicious, Lalla (Red Delicious), Winesap, and Red Statesman are good types.

Red Statesman, and, in addition, Dougherty, are eminently suitable for the late "private order" trade.

The Gravenstein is a good early dessert Apple well worth growing. On account of its susceptibility to gnarl or twist, it is advisable to grow a scaffold tree of another strong-growing variety, such as Delicious, and then rework with Gravenstein scions from selected trees free from the trouble.

As regards Pears, the best commercial varieties are Williams Bon Chretien, Packhams, Triumph, and Beurre Bosc—all are good growers and croppers.

The Winter Cole is a late-maturing variety which is popular in the other States. Stanthorpe growers should, however, limit their plantings of this variety on account of possible Fruit Fly attacks at the end of the season.

Exploiting new markets, South African Grape shippers sent 125,000 cases of Grapes to New York last April. It is hoped to retain this market.

INTRODUCTION OF AUCTION SALES OF FRUIT.

An interesting development in the City Municipal Markets is the commencement of auction sales of all kinds of fruit by a firm of New Zealand auctioneers. This firm has leased a considerable area (comprising approximately 70 stands) in the No. 3 Fruit Market for its selling rostrum, for seating for buyers and for storage space for the fruit to be offered. As in the past sales in the fruit section have been conducted by private treaty, the introduction of auction selling represents a radical innovation, and so far the daily attendance of buyers has only been moderate; whether the attendance will increase as buyers become accustomed to the system is a question upon which the success of the venture largely depends.

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VEGETABLE OPERATIONS FOR FEBRUARY.

The hoe should be kept moving to destroy weeds and to maintain a surface mulch. Apply liquid manure to salad crops and other recently transplanted crops. Spray for diseases and use Derris dust to check white butterfly larvae.

Where ground is idle, and another crop is not to be immediatelly put in, plant cover crops.

Sow now for Winter use: Spinach, lettuce, silver beet. For Spring use: Carrots, cabbage and cauliflower.

Re perennial crops: Remove and burn asparagus tops as the berries begin to turn color, and before they fall in order to prevent undue seeding. In warm districts sow dwarf beans. In colder districts sow onion seed early in March for seedlings for Spring planting.

Harvest main-crop onions when their leaves show signs of yellowing and the tops fall. Harvest main-crop Potatoes when the leaves and haulms die and when it is considered that the tubers will fall freely from the stems without shaking. In cold districts where the tubers remain dormant they may be left in the ground for several months.

WESTERN AUSTRALIAN BANANAS.

Production Rapidly Increasing.

In the last three months of 1940, the production of Bananas in the Carnarvon district increased by 33 per cent. over the production of the corresponding quarter in 1939, states Mr. G. B. Barnett, the Government Tropical Adviser. The respective quantities were 3,302 and 2,206 cases. But in addition there was a marked improvement in quality, and this year, dependent upon a good supply of river water, a still better crop should be possible.

VICTORIAN POTATOES.

The Department of Agriculture (Vic.) estimates an increase of from 7 to 10 per cent. acreage under Potatoes this year, compared with the 32,177 acres of last year.

In the Western District yields of the early Potatoes have been light, the average being in the vicinity of 2 to 4 tons per acre.

So far there is little evidence of early or late Blight or grubs of the Potato Moth. On the whole the present prospects for the late crops are good, but at this early date no estimate of the final yield is possible.

City Fruit Markets Sydney N.S.W.

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SHIPPING NO. 19. 88 VIC. & TAS.

Stencils, Advice Notes, etc., on Application.

It is estimated that in a normal season about 7,000,000 packages of fruit pass through the Sydney Market annually.

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Queensland, Northern Rivers, No. 18.

SYDNEY MARKETS.

Fruit and Vegetable Trade.

INTERESTING information relative to the fruit and vegetable trade of Sydney is contained in a report dated January 22 from Mr. P. S. Macdermott, General Secretary of the N.S.W. Chamber of Fruit and Vegetable Industries, as follows:—

As is usual, the Market during the holiday period over Xmas and the New Year for both fruit and vegetables was not good. Turnover is always reduced during the last week in December, and no improvement takes place until well into January.

Apples: Practically all the last season's Apples were cleared by the end of the year and only light stocks of new season's Apples were available. Any good variety, if well packed, brought payable prices, some varieties selling to as high as 16/- per case.

Following on the Acquisition by the Federal Government, supplies fell off, evidently due to the fact that growers were allowing the fruit to fill out in order to obtain a greater number of cases.

Pears: New season's Pears were in light supply up to the middle of the month, when arrivals commenced in better quantity from the Goulburn Valley.

Oranges were not in heavy supply as compared with other years, but with a weaker demand there was little alteration of values through the month, and only choice lines of well-known brands held at December rates.

Peaches: Supplies of Peaches increased both local and Interstate.

Plums were in heavy supply and many lines were not of good keeping quality.

Cherries: Late Cherries were available in the early part of the month and sold at very satisfactory prices.

Mangoes were in splendid demand and for choice lines good prices were realised.

Bananas were in heavy supply in the early part of the month, and low prices were realised for ripe fruit. There was an improvement in prices after the middle of the month except for ripe and inferior fruit.

Vegetables: The present month has seen very heavy supplies of Peas and Beans. While no figures are available it seems certain that supplies over the past weeks are a record for the Sydney Market.

Beans were not in heavy supply in the early part of the month, and prices for the first ten days were satisfactory for choice lines.

Peas were in heavy supply right through and most lines would not show any return to the producers. This statement would also apply to Beans for the past fortnight.

Tomatoes were plentiful While demand was good for choice lines, unfortunately the bulk of consignments were inferior, having been affected by rain. This applies to both local and Interstate.

The low prices ruling for Peas and Beans naturally had an effect on both the demand and prices of other vegetables, and this was noticeable in the case of Cabbages, which were not in heavy supply.

Lettuces were also heavily supplied and low rates ruled for most of the month.

Bunched Vegetables were in fair demand throughout the period at satisfactory rates, which showed little variation from week to week.

Cable Address: DAVIS, MELBOURNE. Code: "ABC," 4th and 5th Editions. Box, G.P.O. 148B.

J. DAVIS PTY. LTD., *Fruit Merchants*

8 WHOLESALE FRUIT MARKET

Consignments solicited. One Trial Invited. Best Prices obtained. Prompt Advice and Payment.
Telephone, F 3232. Bankers: The National Bank of Australasia, 271 Collins Street, Melbourne.

Telegraphic Address: "Listeria," Melbourne. Telephone: F 6341. Private: Win. 4535.

Codes: Bentley's A.B.C 5th Edition. **IMPORTANT TO GROWERS** Box 555D, Melbourne.

Australia looks to you to produce and sell good fruit, but to **PRODUCE GOOD FRUIT** and have it badly sold is a reflection on your business ability. To sell well is as important as to produce well. The greatest combination that can exist beneficially is that between a painstaking fruitgrower and a painstaking salesman.

If you have good fruit to market, you will find in the firm of **GEORGE LISTER PTY. LTD.** the service you require. Established over 50 Years.

GEO. LISTER PTY. LTD. 12 Wholesale Fruit Market, Franklin Street, Melbourne.
(Managing Director: J. R. VAIL) Bankers: The Commercial Banking Coy. of Sydney Ltd. (Melbourne Branch).

Silbert, Sharp & Davies Pty. Ltd.
FRUIT MERCHANTS
17 Wholesale Fruit Market
'Phone: F 2287.

CONSIGNMENTS OF FRUIT AND VEGETABLES
Assured Highest Market Rates.
P. A. PATRIKEOS
36 Wholesale Fruit Market
Melbourne
Telephone: F2227.

A. MILLIS & SONS
34 Wholesale Fruit Market
EXPORTERS AND IMPORTERS
Specialty—Prompt Returns. Cheques every Wednesday. Phone: F 1862

J. W. ROSS
13 Wholesale Fruit Market
WHOLESALE FRUIT MERCHANT
Prompt Returns and Sales Notes Daily
Tel., F 2426.

G. WOOLF
29-30 Wholesale Fruit Market
WHOLESALE FRUIT MERCHANT & COMMISSION AGENT
Telephone: F 5550.

BELL, BANSON Pty. Ltd.
Wholesale Fruit Merchants,
20 Wholesale Fruit Market, Melb.
CONSIGNMENTS OF FRUIT AND VEGETABLES SOLICITED.
Tel.: F1023; Private: JW2528.
Bankers: E.S. & A. Bank, Market Branch.

T. Stott & Sons Pty. Ltd. FRUIT MERCHANTS ESTABLISHED 1882.
26, 36 Wholesale Fruit Market, Melbourne, And at VICTORIA MARKETS.
COUNTRY AND INTERSTATE ORDER TRADE SUPPLIED.
SHIPPING No. 41. PROMPT SETTLEMENTS. CONSIGNMENTS SOLICITED.
PHONE: F 4370. Bankers: Bank of Australasia, Melbourne.

Regular Supplies of Quality Fruit well Packed and Graded will realize the Best Prices.

H. LOUEY PANG & CO. PTY. LTD.
FRUIT AND PRODUCE MERCHANTS
No. 4 WHOLESALE FRUIT MARKET, MELBOURNE
G.P.O. Box No. 795F, Melbourne.
References—E.S. & A. Bank, 225 Swanston St., Melbourne.
Telegraphic Address: "PANGANCO." GOOD PRICES ASSURED Cheques Sent Promptly. F 6532.

Tim Young & Co. Pty. Ltd.
WHOLESALE FRUIT MERCHANTS
18 Wholesale Fruit Market
Growers can be assured of receiving the very best service and prompt returns.
Cable Address "TIYOUNG"
A.B.C. Code, 5th Edition.
Box 28a, G.P.O., Melbourne.
TELEPHONE, **F 4321**
Bankers:
E.S. & A. Bank Ltd., Melbourne—225 Swanston Street.
Stencil or Labels on application.

Telephones: F 4394 (After hours) F 5575 SHIPPING NO. **91** Telegrams and Cables: "PAXINOS," Melbourne.

D. S. LUCAS & CO.
Accredited Selling Agent S.A. Tomato, Celery, and West Australia Tomato Association. Fruit and Banana Merchant, Importer and Exporter, and General Commission Agent.
PROMPT RETURNS. £1,000 FIDELITY BOND.
9 WHOLESALE FRUIT MARKET, Box 4076, G.P.O., Melbourne.
Members Wholesale Fruit Merchants' Assn. of Victoria.

H. & S. FRANKEL
(Established 35 Years)
No. 44 WHOLESALE FRUIT MARKET, MELBOURNE.
Growers in all States are invited to send consignments. Highest market rates and prompt settlements.
Telephones—
Store: F 4874.
Private F 1555 & FW 3711.
Bankers—
Commonwealth Bank of Australia.
"Growers' Interests further protected by our Fidelity Bonds."

A. E. PITT
Established 1893.
Member of Wholesale Fruit Merchants' Association of Vic.
14 WHOLESALE FRUIT MARKET, MELBOURNE.
Consignments Solicited from all States.
Growers Will Receive Top Market Value and Prompt Returns.
Fidelity Bond Guarantee for £1,000
Pea and Bean Stands, 11 and 12 Victoria Market.
Reference—E.S. & A. Bank, Elizabeth St. Branch, Melbourne.
Phone: F 5035.

VICTORIA.

Melbourne (3/2/41): The following prices are quoted by the Wholesale Fruit Merchants' Association:—Cases: Apples, eating, 4/-, 6/-; choice higher; cooking, 3/-, 5/-, few higher; Bananas, 10/-, 13/-, few higher; Grapefruit, 5/-, 15/-, selected higher; Grapes, 7/-, 11/-, few higher; Lemons, 10/-, 15/-, selected higher; Oranges, 4/6, 10/-, selected higher; Passionfruit, a half case, 4/-, 7/-, a few higher; Pineapples, 8/-, 10/-, few higher; Peaches, ripe, 2/6, 6/-, few higher; Tomatoes, locals, 2/6, 6/- per case, few higher; Plums, 2/6, 5/-; Pears, 5/-, 8/-; Cantaloupes, 4/-, 7/-, few higher.

SOUTH AUSTRALIA.

Adelaide: The following prices are quoted by the S.A. Fruitgrowers' and Market Gardeners' Assn. Incorp.:

Vegetables: Beans, French, 4/- doz. lbs.; Beetroot, 1/6 doz.; Cabbages, 3/- to 6/- doz.; Carrots, 3/- doz. bunches; Cucumbers, 5/- doz., (Apple), 1/6 doz.; Lettuces, 1/3, 1/6 doz.; Onions, 12/- cwt.; Parsnips, 2/- doz. bunches; Peas, 10/-, 11/- bush.; Potatoes, 12/- cwt.; Rhubarb, Cherry, 1/- doz. lbs.; Tomatoes, 7/- and 8/- ½ case; Trombones, 6/- cwt.; Turkshead, 6/- cwt.; Turnips, 2/- doz. bunches; Swede, 2/6 doz. bunches; Vegetable Marrow, 2/-, 3/- doz.; Triambles, 5/- cwt. (Cases extra.)

Fruits: Oranges, Common, Valencia, 8/-, 10/-; Lemon, 18/-, 20/- case; Apricots, 5/- ½ case; Peaches, 4/- ½ case; Nectarines, 6/- ½ case; Plums (Japanese), 3/-, (Prunes), 2/6 ½ case; Grapes (Dark), 4/6, 5/6 ½ case; Bananas, 20/-, 22/- crate; Pineapples, 18/- crate.

CITRUS ASSOCIATION CONFERENCE.

A conference of delegates from all producing districts has been called by the Victorian Central Citrus Association, to be held on Wednesday, February 12, at Temple Court, Melbourne. Many matters of interest to the industry will be scheduled for consideration. A report will be given in our next issue.

"BAY VIEW" PICKING BAG.

In our January issue in the advertisement of the "Bay View" picking bag, a slight error was made, which altered the sense of the testimonial from Mr. Ivey, Cygnet, Tasmania. The final sentence should have read "I find them good for 10,000 cases per bag say 1/3 for every 1,000 cases." Thus Mr. Ivey's experience is that the cost of the bag is only at the rate of 1d. for each 70 cases handled. The usefulness of the bag is many times greater than this small cost.

In these days of labor shortage, the grower is compelled to adopt all possible means of saving time, and the use of the "Bay View" helps him to do this. It eliminates the bruising which occurs when fruit is tipped into the case, because this bag has a full-way opening at the bottom that allows the fruit to be quickly rolled out, without injury. This bag is suspended across the picker's shoulders which carry all the weight, and it allows the free use of both hands.

It is satisfactory to note that the Federal Government in its desire to avoid undue burdens on the fruitgrowers, granted relief from sales tax some years ago, and when this was done it became possible to reduce the price of the bags with web straps to 12/- each. In the recent Budget this position was not disturbed. However, difficulties in obtaining materials are now increasing, and so as to enable the manufacturers to provide for all requirements, growers should place their orders for bags at once. Full price list and cost of postage is shown in the advertisement in this issue.

Mr. Ivey, is only one of a large number of prominent orchardists in Tasmania, and on the mainland, who have been regular users of the "Bay View" bag for several years past. A few brief opinions expressed are as follow:—

"The cost is more than recouped in one season."

"Comfortable to wear and fruit is handled with a minimum of bruising."

"They are a great time saver."

"They are a great success and splendid to pick into."

The sole manufacturers of the "Bay View" bags are Messrs. Fotheringhams Pty. Ltd., 118 Charles-street, Launceston, Tasmania, telephone Central (Launceston) 141, and the Victorian distributor is Mr. F. R. Mellor, 452 Queen-street, Melbourne, C.1, telephone F 2387. Supplies may be had direct, or through district agents.

FRUIT BUYERS

LEMONS, ORANGES, GRAPEFRUIT, PEARS, PEACHES, APRICOTS, BERRIES, CHERRIES.

BROOKE'S LEMOS LTD.

69-79 WHITEMAN STREET, MELBOURNE SOUTH, S.C.5.

— Telephone, M 3141. —

TRANSPLANTING TOMATOES.

When transplanting during Summer, much loss is caused by the young plants "burning off" at ground level, especially in fine or sandy soil, warns the "Queensland Agricultural Journal."

Transplanting should be done on a dull day or late in the day. The stem of each plant should be rolled in paper, cut to about 4 x 12 inches, like rolling a cigarette, leaving only the top leaves and root exposed. It has been found that the young plants will not droop but soon become established.

THRIFT IS THE ARTIFICER OF FORTUNE

Thrift is just saving, not alone by the accumulation of money, but by the wise spending of it, and saving is just commonsense. The majority of incomes are modest, so the majority of people must plan, either for unusually heavy purchases, or for the eventual establishment of a competence. The majority of people obviously realise this, and use the best, most practical system of all, the Savings Bank account. It costs nothing, holds your money safe while paying interest, and releases it to you whenever and wherever you may require it.

Commonwealth Savings Bank of Australia

(Guaranteed by the Commonwealth Government)

Agents in the

BRISBANE FRUIT MARKETS

Highest Prices. **A. S. BARR** Prompt Returns.

FRUIT EXCHANGE, BRISBANE, QUEENSLAND.

Wholesale Fruit Merchant and Growers' Agent.

A Trial Solicited. Returns Speak for Themselves. Shipping No. 19.
Established 1888. Registered Telegraphic Address: "Barr, Brisbane."

W. Arkell & Sons Estab. 1892

BRISBANE, B.12. GROWERS' AGENTS.

Shipping No. 12

Bankers: National Bank of Australasia, George St., Brisbane.

Herbert Wilson Pty. Ltd.

WHOLESALE FRUIT MERCHANTS AND COMMISSION AGENTS

Nos. 1 and 10, Wholesale Fruit Market, Melbourne.

Accredited Agents for Victorian Central Citrus Association and Affiliated Association.

City Telephone: F 6444. Private Phone: M 3055.

Bankers: National Bank of Australasia (Western Branch), Melb.

MURRAY BROS

CONSIGNING NO. 22 BRISBANE

SECTIONS 5, 41, & 42 ROMA ST. MARKETS

Motor Notes

HELP YOUR TYRES.

During the hot weather especially, tyre failure increases and tyres weakened by age or heat can be helped by taking the advice of Dunlop Perdriau.

1. Keep your tyres, including the spare, properly inflated. Check air pressures at least once a week, and inflate to the manufacturers' recommendation when the tyre is cold. Don't let the air out of a tyre if it has gained pressure during a trip when it is hot. It is natural for heat to increase the pressure in the tyre, and to deflate it will only cause it to get hotter when the journey is resumed, because the tyre will flex more.

2. Have your tyres regularly examined by your tyre dealer. Most dealers make no charge for an examination without demounting the tyres. As a safety precaution, however, it will pay to have your tyres demounted, inspected thoroughly inside and out, even if a nominal charge is made for this service. Promptly have attention given to any cuts and bruises which are found. An ounce of precaution is worth a ton of cure.

3. If your wheels show any signs of misalignment, have wheels checked and properly balanced, and make sure the brakes are equalised.

4. In order to obtain the most mileage, switch the wheel positions of tyres every four or five thousand miles, using the spare tyre in its turn.

5. Check tubes and valves for slow leaks. Many tyres are ruined by faulty tubes, so replace old worn ones. After all, it is the air in the tube that carries the load, the casing only protects the tube.

6. Tyres that are worn smooth represent potential trouble. They offer less resistance to punctures and bruises, and provide less resistance to skidding when the roads are wet.

CARE OF AIR FILTER.

With almost any type of air filter installed on your car it must be cleaned at regular intervals, depending on the sort of roads you drive over. A choked filter restricts air entry and this enriches the mixture. The result is poor performance, heavy fuel consumption, and rapid cylinder wear. In addition the filter will be less efficient in keeping grit from the cylinders. The same advice applies to the breather or crank case ventilator system. If this chokes, pressure built up in the crank case will force oil out of the main bearings, making it appear as though an engine overhaul were necessary. Portion of the grit also is likely to be carried into the engine to cause damage.

USE YOUR STARTER.

Correcting a common belief that starting the car with the starting handle instead of the electric starter is an advantage and saves strain on the battery, "The Motor" (Eng.) explains that in modern cars this supposed draining of the battery is provided for and that actually frequent starting by the starter does not unduly decrease the battery power. A battery of any well-known make is designed to obviate handle-starting and to give the driver every comfort that present-day use of motor vehicles demands.

SAVING TYRE LIFE.

Rotating the Spare.

Spare tyres, especially those carried in an exposed position, will last longer treated with a solution of one part of glycerine to four parts of water.

Carried in an enclosed compartment, the spare on most cars is thus protected from the weather. The motorist, nevertheless, will be repaid by putting every new tyre into service for at least three or four hundred miles before he uses it as a spare. In this way the stretch will be taken out of the tyre.

Most careful car owners rotate front and rear tyres, and it is a good idea to include the spare in this rotation. Many tyre miles will be saved in this manner.

Don't slump down in the driving seat; sit up straight so long as you are comfortable and have the seat at a height that is right for the length of your legs.

Life of the chassis will be lengthened by regular greasing. Don't wait until squeaks proclaim dryness in the bearings or where any movable metal rubs.

PETROL FROM FARM PRODUCTS.

70 Million Gallons Possible.

WITH PETROL RATIONING proposed, and the anxiety over supplies that is only one of the repercussions of war, technical experts are studiously considering how a possible petrol shortage can be overcome in Australia. Greater efforts are being made to discover natural petrol in potential oil fields and producer-gas outfits are already well advanced and likely to be made practical.

The Queensland Cane Growers' Council calls attention to the possibility of extracting power alcohol from farm products and suggest that if 20 per cent. of the Commonwealth requirements were thus manufactured it would represent something like 70,000,000 gallons per year. The Council further states that over 50 million gallons could be obtained from sugar cane which, in addition to meeting a great national need, would expand that particular industry and be greatly to the benefit of the whole country.

Further, that if other farm products were used in the extraction of power alcohol the wheat and fruit grower would also greatly benefit. Such an extension of this new industry would need special legislature requiring the petrol companies to take a proportion of their supplies from local distilleries in each State and such other legislature as should be required to make available the petrol at normal prices as well as to protect labor and financial interests.

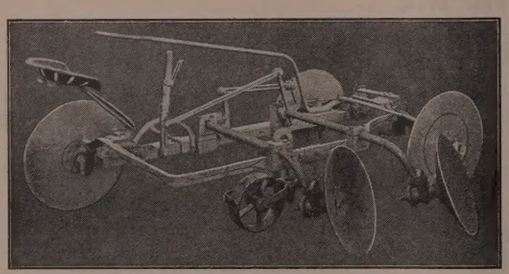
It is further argued that the present duty on petrol, required for the national income, could be applied in the nature of an excise duty, and still allow distilleries a fair working profit without raising the cost to the consumer above present prices. If local power alcohol were added to imported petrol at say a ratio of 5 to 1 mixture, it would be a satisfactory arrangement and most of the expenditure would be kept in the Commonwealth, in itself an advantage.

Again, such an arrangement would create greater employment which, in the post-war period would be a wise economic move, and both the farming industry and secondary employment would be benefited. In view of present conditions therefore, this seems like a sound proposition and one that should commend itself to all parties.

PLUG POINTS.

The efficiency of the plug depends upon the correctness of the gap between the points. If adjusting this gap be sure that you do not bend the central electrode nor crack the porcelain. If the latter is cracked the plug will not function correctly for long.

"HILLMAN" ORCHARD STRIP PLOW



Double Furrow

A sturdy, strong plow equipped with reversible discs to enable the operator to plow up to, or away from the trees. Operated by a single lever and with nothing to catch branches of trees. To facilitate the movement of the plow around the orchard the discs are movable and lift clear of the ground.

The steering arms are drop forged from the best mild steel and the main wheels are equipped with ball bearings.
Two medium horses can work this machine all day without tiring. A machine may be obtained for a trial at any time.

Further particulars apply . . .

HILLMAN & KEOGH
Implement Manufacturers
Shipley Street, Box Hill, Melbourne, E.11

Fruit Merchants and Exporters of South Australia

When Consigning to ADELAIDE MARKET, try—

Earle S. Caldicott
FRESH FRUIT SPECIALIST
Interstate Representative, Exporter & Commission Agent
Communicate: Box 970 H, G.P.O., Adelaide.
Phone: C 2882. After Hours, L 5395.
Telegrams: "Caldicotts," Adelaide. Reg.

Growers! Consign your Fruit To

H. C. Austin
Wholesale Fruit and Produce Merchant, General Exporter, Commission Agent, Shipping Providor.
Specialty Overseas Export All Countries.
New Market, Union St., Adelaide
Phone C 744. G.P.O. Box 722. Telegrams: Austin Fruit.

Poultry Notes

CONTROLLING TICK.

Watch the Perches.

Sometimes poultry will be suffering from the effect of ticks without the owner recognising the cause of the trouble. The ticks live in crevices in the perches and come out at night, sucking the blood from the birds when they are roosting.

Fowls which have never been in tick infested quarters will very soon sicken and die of tick fever after they have been bitten, but they sometimes become immune after recovery from tick fever, but not always.

Ticks may grow as long as a small finger nail, are oval in shape, reddish brown when charged with blood, and light brown when in a starved condition. In normal condition they may be a somewhat darker color, but as they can live for years without food, their appearance changes according to the food they are able to obtain.

Ticks are more active in the Spring and Autumn months than they are in the extreme hot or cold weather, but when their abode is adjacent to the fowl roosts more frequent visits will be made for food. Young ticks usually fasten into the skin inside the wings where there is little feathering and the skin more tender, but when the chicks become badly infested they will be seen all over the body. Ticks of the adult type will, if hungry, fasten on the fowls' feet in between the toes, or they may travel up the leg until they reach the body before biting.

Control measures include the frequent painting of the perches with used motor sump oil or the flame from a blow lamp. If the tick is not got rid of, the birds will lose vitality, mope about, decrease production in layers and lower resistance to disease. Prevention is better than cure, so watch the perches.

WORMS IN POULTRY.

Not the greatest injury done by worms is from the loss of nutrition sustained, as it is known that even after de-worming, the birds prove unthrifty. Worms also set up a poison in the intestinal tract that is often absorbed in the body and blood stream, destroying the red corpuscles and bringing about an anaemic condition, reflected in pale combs and wattles, as well as affecting the nervous system and often resulting in lameness and even paralysis.

Worm infestation is therefore most unprofitable, and every effort should be made to keep the pens and yards free of these pests; droppings should be collected often and the birds saved from the possibility of picking up worms during feeding or when scratching about on the runs.

The Pig Pen

MEATMEAL AND MILK.

Pigs thrive on a mixture of milk and meatmeal or meatmeal alone as the protein-rich portion of the diet. The quantities used should not exceed from 4 to 8 oz. daily per pig from weaning to baconer stage, according as to whether good Lucerne is available or not; and 8 oz. for each dry sow and 16 oz. daily for each sow with litter. By feeding a constant quantity of separated milk or meatmeal and increasing the grain and other foods according to the pigs' appetite, the nutritive ratio is widened automatically as the pig grows and satisfies its requirements. In cases where pigs have access to good young pasture or green crops, the minimum quantity of separated milk or meatmeal stated above may be reduced by up to 50 per cent., depending on the quality of the green foods. Meatmeal may be fed dry or mixed with swill, milk, or water.

KEEPING PIGS HEALTHY.

The healthier the pigs are the more rapid and more economical are the gains in live weight.

Here are a few pointers about keeping your pigs in good health:—

Always have the yards and runs free of mud holes.

Provide clean drinking water.

Regularly keep the quarters clean and disinfected, and see that where the pigs are housed it is dry, clean and free from draughts.

Feed proper rations, and graze the animals on clean pastures.

Home Notes

HOUSEHOLD HINTS.

Grass Stains.

Grass stains on flannel trousers can be removed by making a paste of glycerine and egg-white in equal parts, and covering the stain. Let it stand for a few hours and then sponge away.

When You Need Suet.

When you want to make a suet pudding and find that you have no suet handy and cannot spare butter to use in place of suet, use grated raw Potato, a tablespoon to a cup of flour, and you will find it an excellent substitute.

Preserving Leather.

Waste oil will not prove a satisfactory dressing for leather harness, collars, etc., as this oil, being of mineral origin, will cause the leather to deteriorate rapidly. Leather requires nourishing and being an animal product, requires an animal fat. Neatsfoot oil is by far the best dressing for leather work, but is closely followed by first-grade tallow. A suitable dressing can be prepared on the farm by rendering down pure mutton fat. It is important that this fat be free of all impurities, especially salt, etc.

THE FIRST-AID BOX.

Whilst the average housewife can meet most emergencies for immediate home treatment for minor injuries, the articles required may be kept in the pantry, bedroom or bathroom, and are not always available without a search in several places. A first-aid box is a wise provision and should contain at least the following articles ready for immediate use: Three bandages 3 in. wide; three bandages 2 in. wide; one packet each of white lint, boric lint and white cotton wool; boracic ointment, scissors (sharp); safety pins; sal volatile, aspirins, adhesive tape, tannic acid jelly (for burns), small bottle iodine (for cuts), and a small towel (which must be kept clean).

Paint the chosen box white, with the distinguishing red cross on the outside. Fix a lock to it so that children or unauthorised people cannot get at the contents, and line the inside with white American cloth, which is easily kept clean.

TO-DAY.

"To-day" is fabric sent to me
To work upon; it comes to earth
And waits my skill and industry
To make an article of worth.

Love is the pattern I must take
To model this new day a-right.
Love, too, will show me how to make
A thing of beauty and delight.

And service is the choicest thread
That I can use; its strands of gold
Will make strong seams that never shred
Nor ravel, though the cloth grows old.

Success in making must depend
On joy in toil and energy.
The price I cannot comprehend—
'Tis valued in Eternity.

(Leah Wade.)

SPECIAL NOTICE TO FRUITGROWERS

All Members under Fidelity Bond

In response to numerous requests from growers for information as to who are members of the

Wholesale Fruit Merchants' Association of Victoria

the following list is given. All are members of the above Association, and are registered firms carrying on business in the

WHOLESALE FRUIT MARKET, MELBOURNE.

STAND NUMBERS ARE AS INDICATED IN PARENTHESES.

T. STOTT & SONS PTY. LTD. (26-36).
H. L. E. LOVETT & CO. (23).
A. E. PITT (14).
J. DAVIS PTY. LTD. (8).
W. S. TONG (31).
SILK BROS. PTY. LTD. (24-25).
J. G. MUMFORD (35).
GOLDEN VALLEY FRUIT CO. PTY. LTD. (15).
J. W. ROSS (13).
H. M. WADE & CO. (21).
DAVID SMITH PTY. LTD. (3).
SILBERT SHARP & DAVIES PTY. LTD. (17).
WATKINS FRUIT COMPANY PTY. LTD (5)
G. WOOLF & SONS (29-30).
R. CORNISH & SONS (5).
J. HYMAN & SON (51).
HERBERT WILSON PTY. LTD. (10).
FRANK BOOTH & SONS PTY. LTD. (16).
GEO. LISTER PTY. LTD. (12).
TIM YOUNG & CO. PTY. LTD. (18).
F. W. VEAR PTY. LTD. (28).
YEE HOP LOONG & CO. (32).
H. LOUEY PANG & CO. PTY. LTD. (4).
WING YOUNG & CO. (38).
D. MENTIPLAY & CO. PTY. LTD. (27).
PRICE & KING PTY. LTD. (2).
REGAN & KENNY (Successors to Wm. Sweeney). (33).

Correspondence is invited by the Association.

Office : 21 Wholesale Fruit Market, Queen Street, Melbourne. Phone: F 4866.

Technique in Fruit Growing

VALUABLE TESTS AT BATHURST EXPERIMENTAL FARM.

FRUIT TREE STOCKS – PROPAGATION – REMOVAL OF SPRAY RESIDUE – PREVENTION OF EROSION.

Seedling Stocks Superior to Northern Spy. Are Our Pruning Methods Too Severe?

INVESTIGATIONAL WORK in progress at the Bathurst (N.S.W.) Experiment Farm Orchard covers a wide range of fruit problems, states Mr. C. G. Savage, Chief of the Division of Horticulture, N.S.W. The work includes extensive tests in connection with such important matters as fruit tree root stocks, methods of propagation, pruning, removal of arsenical residues, etc. In addition to trials of new or improved stone and pome fruit varieties, much work is being carried out regarding cultural problems, reworking, and mineral deficiencies in the orchard and fruit pests and diseases.

The large **Apple rootstock trials** are most comprehensive, being designed to supply necessary knowledge of the behaviour of standard varieties of Apples on each of a large collection of stocks obtained in Australia and overseas. These include Clonal strains of local and imported root stocks, besides selected vigorous seedling stocks. In addition, semi-dwarfing and dwarfing stocks have their place in the experiments.

Definite opinions regarding the merits of the various stocks cannot yet be formed, as the work is not sufficiently advanced, but interesting comparisons can already be made.

Superior Seedling Stocks.

The great vigor and consequent larger size of trees on most seedling stocks, particularly as compared with Spy, the earlier cropping and earlier maturing of fruit of trees on Northern Spy, and the drought resisting qualities of trees raised on a Siberian Crab Apple (Pyrus mulus baccata) are impressions gained from first observations. However, the ultimate results will be based on the condition of the trees and the returns over a number of years.

In regard to **propagation,** the effects of various methods, together with compatibility in numerous stock scion combinations, are being studied. Comparisons of trees raised by root grafts and buds, high and low working, and by double working, will supply valuable knowledge for practical application.

Is Pruning Too Severe?

There is little doubt that in the past, pruning methods have been too severe, and very often the treatment has had a tendency to check rather than assist tree development. However, it does not necessarily follow that this can be overcome merely by reducing the amount of pruning. Extremely light pruning treatment may have results of a different though equally unsatisfactory nature. Pruning has commanded a good deal of attention in recent years, particularly the pruning of Apple trees, and detailed work is being carried out at Bathurst Orchard to investigate modern tendencies in pruning treatment and the effects in comparison with older methods.

Spray Residue Removal.

The removal of arsenical residues caused by frequent applications of spray to Apples for the control of Codling Moth has been the subject of a good deal of experiment. **A washing machine** specially designed to handle Apples has enabled the operations to be studied at Bathurst under packing conditions. It is now possible to give details of a satisfactory procedure for the removal of spray residues.

Contour planting and contour banking for the control of water and prevention of erosion in orchards have been demonstrated at Bathurst Experiment Farm for a number of years. This work (for which Mr. J. A. Ballantyne was responsible) has proved the efficiency of the methods and the system should be regarded as necessary where orchards are to be planted on sloping land liable to erosion.

Investigations concerning the growing and maintenance of fruit trees are necessarily protracted, as many years must elapse before definite results are forthcoming. It is possible, though, to gain useful and interesting information as the work proceeds. For this reason fruitgrowers in this and other districts are invited to keep in touch with the investigational work in progress at the Bathurst Experiment Farm Orchard.

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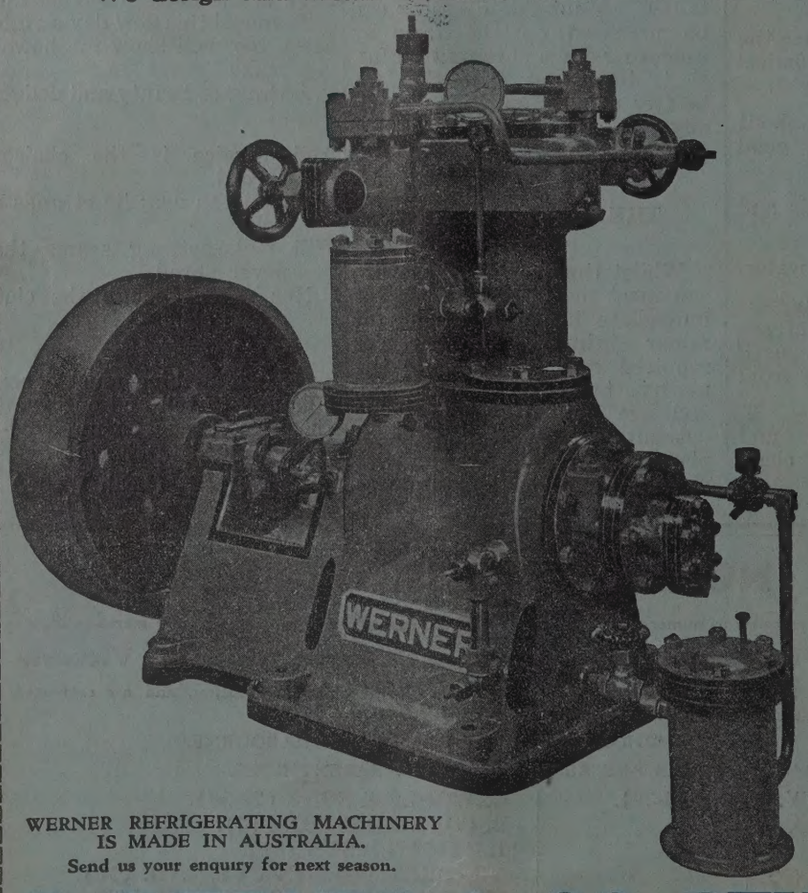

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